EXHIBIT C

NSSF® REPORT 2021 EDITION SPORT SHOOTING PARTICIPATION

IN THE U.S. IN 2020



SPORT SHOOTING PARTICIPATION IN THE UNITED STATES IN 2020

2021

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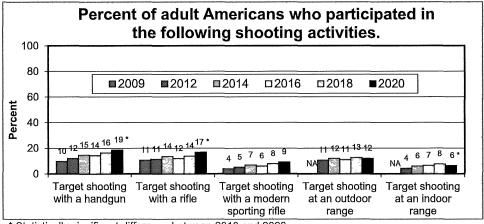
Sport Shooting Participation in the United States 2009 to 2020: Overview

Survey Topics

- Participation in Target and Sport Shooting
- Trends in Participation in Target and Sport Shooting
- Days of Participation in Target and Sport Shooting
- Motivations for Target and Sport Shooting
- Demographic Characteristics of Shooters
- Characteristics of New Shooters
- Traditional and Nontraditional Pathways
 To Sport Shooting
- Initiation Into Target/Sport Shooting
- Growing Up With Firearms and Its Effect on Shooting Participation
- Nontraditional Shooters
- Overlap of Participation in Target Shooting and Hunting
- Types of Firearms Used in Target/Sport Shooting and Hunting
- Likelihood To Go Target or Sport Shooting in the Future
- Reasons for Not
 Participating in Target or
 Sport Shooting and
 Non- Shooters'
 Demographic
 Characteristics
- Reasons for Not Participating in Hunting

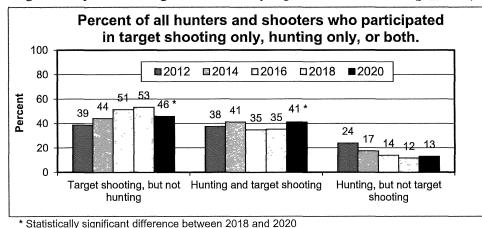
This study of sport shooting participation in 2020, from a survey completed in March 2021, continues a series of studies that Responsive Management has conducted for the National Shooting Sports Foundation about this topic. Since 2009, these studies have been released every 2 years, allowing an examination of trends in participation in the past decade.

The studies show a fairly steady increase, with one blip in 2016, in the number of shooters in the United States during the course of the surveys, from 34 million in 2009 to 56 million in 2020. Participation in various types of shooting have been tracked, all showing an increase over the course of the studies, with one exception: the 2020 rate of shooting at an *indoor* range fell, a statistically significant difference ($p \le 0.05$). This is not surprising because of the effects of the COVID-19 pandemic in 2020. (The studies also track participation in the clay shooting games, all of which had small statistically significant increases in participation at the $p \le 0.05$ level, and long-range shooting, shown in the full report. The 2009 survey did not include questions about shooting at a range.)



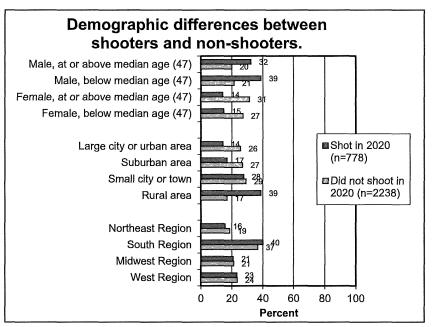
* Statistically significant difference between 2018 and 2020

The studies also found that the pool of hunters and shooters considered as a whole had been increasingly made up of shooters from 2012 to 2018, but then hunters made a slight gain in 2020, albeit hunters who also went target *and* sport shooting—a statistically significant difference ($p \le 0.05$).

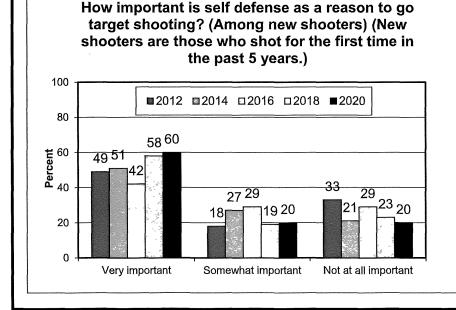


Overview Continued

- ♦ The 2020 rate of target/sport shooting participation among adults in the United States was 24.1%, which extrapolates to an estimated 56.4 million adults participating in any type of target or sport shooting in 2020. Note that this rate represents just slightly more than half of the people who have a firearm in their household—both Gallup and the Pew Research Center estimate that more than 40% of U.S. households have a firearm.
- The rate of participation in nearly every shooting activity is higher in 2020 than in any other year (the exception being target shooting at an *indoor range*, which is slightly down from 2018, a likely result of COVID-19).
- ◆ Target shooting with a handgun (18.6% participated), target shooting with a rifle (16.8%), target shooting at an *outdoor* range (12.0%), and target shooting with a modern sporting rifle (9.1%) had the highest participation rates. Note that sport shooters could have participated in multiple types of shooting, and they generally did so.
- While COVID-19 likely had an effect on established sport shooters and hunters (this study did not directly ask established shooters about it), the study showed a definite effect on shooters who first shot in 2020—more than a fifth of them started shooting at least in part because of COVID-19.
- ♦ The study explored the demographic characteristics of shooters compared to non-shooters. Shooters were more likely to be male, particularly young and male, and they were much more rural, relative to non-shooters. While the South has the most shooters of any region, there are no marked differences regionally between shooters and non-shooters.
- As with previous studies, this year's survey report examined new shooters—those who started within the past 5 years. The percentage of all shooters (those who shot in 2020) who are identified as *new* shooters is 12%, a rate that is lower than previous years. One reason for the lower rate is that the surges of new shooters in the Presidential election years of 2012 and 2016 are moving through time, and those new shooters in 2012 are no longer new shooters.



• New shooters are continuing to be attracted to the sport in nontraditional ways (traditional being a young male being introduced to shooting by family, usually his father, in a rural setting). New shooters, compared to established shooters, are much less likely to go target shooting with a rifle—perhaps the most "traditional" shooting. New shooters are much more likely than established shooters to go to an indoor range. Established shooters are much more likely than new shooters to have grown up around firearms,



- as 84% of established shooters grew up in a firearm family, while only 56% of new shooters did. This makes new shooters somewhat different than more "traditional" sport shooters who were introduced to shooting in a family setting.
- Further evidence of nontraditional entry into shooting is found in the trend on the importance of self defense as a motivation for shooting—it has continued to rise over the years among new shooters, as shown at left.
- ♦ Other topics that were explored include the likelihood to go shooting in the next 2 years. Among those who shot in 2020, 19% do not expect to shoot in 2021—which is a substantial challenge for retention programs. Fortunately, 61% are very likely to go in the next 2 years, and another 19% are somewhat likely.

Acknowledgments

Responsive Management would like to thank Dianne Vrablic and John McNamara of the National Shooting Sports Foundation for their input, support, and guidance on this project.

Although the NSSF partnered with Responsive Management for this report, any errors in the report are the sole responsibility of Responsive Management.

EXECUTIVE SUMMARY

This 2021 shooting participation report (about participation in 2020) is the latest in a series of studies conducted for the National Shooting Sports Foundation (NSSF) by Responsive Management. The first study was conducted about shooting in calendar year 2009, and then subsequent studies were conducted every two years starting with a look at calendar year 2012. These studies determined regional and national participation rates in target and sport shooting. This study entailed a telephone survey of U.S. residents ages 18 years old and older, using a probability-based random sample that is fully reflective of the U.S. population as a whole.

METHODOLOGY

Telephones were selected as the preferred sampling mode for several reasons. Past research on surveys by Responsive Management on shooting sports or other outdoor recreation has shown that respondents who do not actively participate in outdoor recreation are more likely to respond to a telephone survey than a mail or online survey, as there is more effort involved in responding via mail or online. Respondents who did not participate in outdoor recreation will readily tell an interviewer verbally that they did not do so, but they are much less motivated to answer even a single survey question on paper and mail it in or go to a web address and respond online. For this reason, surveys that are performed via mail or online have an inherent risk of overestimating participation due to the decreased response from those who did not actively participate.

Furthermore, telephone surveys allow respondents who cannot or will not respond to a mail or online survey to participate. Mail and online surveys systematically exclude those who have difficulty reading. In addition, those with poor or limited internet service or who are intimidated by technology may be reticent to complete a survey online. Finally, telephone surveys also have fewer negative effects on the environment than do mail surveys because of the reduced use of paper, reduced energy consumption for delivering and returning the questionnaires, and reduced quantity of material to be disposed of after the survey.

The NSSF and Responsive Management developed the survey questionnaire cooperatively, based in part on the previous surveys. The telephone survey was computer coded for Responsive Management's computer-assisted telephone interviewing (CATI) process. An important aspect of this process is that the computer controls which questions are asked and allows for immediate data entry. Each telephone survey, however, is administered by a live interviewer. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey.

The probability-based random sample was fully reflective of the U.S. population as a whole, and each U.S. resident had an approximately equal chance of being in the sample. The methodology used a dual-frame sample, which consisted of a random sample of landline telephones and a random sample of cell phone numbers, which ensured that all telephone users had an approximately equal chance of being called.

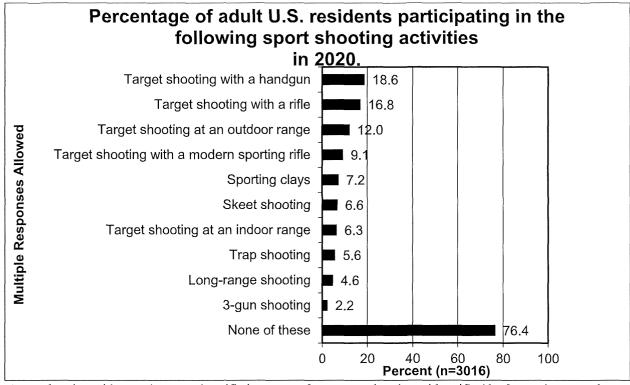
Telephone surveying times were Monday through Friday from 10:00 a.m. to 9:00 p.m., Saturday from noon to 8:00 p.m., and Sunday from 2:00 p.m. to 9:00 p.m., local time. A five-callback design was used to maintain the representativeness of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all to participate. When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. The survey was conducted in February and March

2021 (but note that it asked about participation in 2020). Responsive Management obtained 3,016 completed interviews.

The analysis of data was performed using IBM SPSS Statistics as well as proprietary software developed by Responsive Management. For the entire survey sample, the sampling error is at most plus or minus 1.78 percentage points, at the 95% confidence interval. For some trends, statistical significance is indicated by the notation, $p \le 0.05$, meaning it is statistically significant at a 95% confidence interval between 2018 and 2020.

PARTICIPATION IN TARGET AND SPORT SHOOTING

The 2020 rate of target/sport shooting participation among adults in the United States was 24.1%, which extrapolates to an estimated 56.4 million adults participating in any type of target or sport shooting in 2020. The graph below shows that the most popular types were target shooting with a handgun (18.6% participated), target shooting with a rifle (16.8%), and target shooting at an outdoor range (12.0%). The actual numbers of participants are tabulated following the graph.



Target shooting with a modern sporting rifle is separate from target shooting with a rifle (the former is not a subset of the latter).

To put the participation rate of shooting in perspective, that overall participation rate of 24% is well below the percentage of households with firearms, estimated by both Gallup and the Pew Research Center* to be more than 40%. Comparatively, Responsive Management has also found that approximately 42% of Americans either own a firearm or live in a household with a firearm. While the percentage of households and the percentage of people are not the same—because all households are not the same size—the Gallup, Pew, and Responsive Management estimates are close to each other at approximately 40%. Therefore, it is reasonable to assume that well more than 24% of people are in a household with access to a firearm. Removing the approximately 60% of households that do not have a firearm, the participation rate means that a little more than

half of people with access to a firearm went shooting in 2020. (*See the body of the report for full references of these studies.)

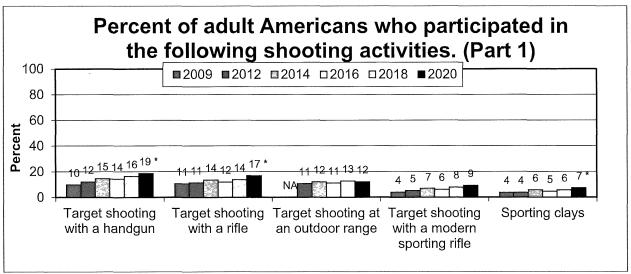
National Participation in Target and Sport Shooting in 2020

	Estimated Total	95% Confide	ence Interval
Activity	Participants (ages 18 years and older)	Lower Limit	Upper Limit
National			
Any target shooting or sport shooting	56,449,334	53,036,385	59,862,282
Target shooting with a rifle	39,370,514	35,750,187	42,990,841
Target shooting with a modern sporting rifle	21,313,424	18,392,021	24,234,827
Target shooting with a handgun	43,552,855	40,840,286	46,265,424
Trap shooting	13,047,994	10,412,883	15,683,105
Skeet shooting	15,469,568	13,893,692	17,045,444
Sporting clays	16,870,119	14,887,464	18,852,775
Any clay	23,200,498	21,694,090	24,706,905
Target shooting at an outdoor range	28,165,580	26,567,510	29,763,649
Target shooting at an indoor range	14,664,740	13,066,670	16,262,810
3-gun shooting	5,187,494	3,119,612	7,255,377
Long-range shooting	10,870,784	9,135,842	12,605,727

Target shooting with a modern sporting rifle is separate from target shooting with a rifle (the former is not a subset of the latter).

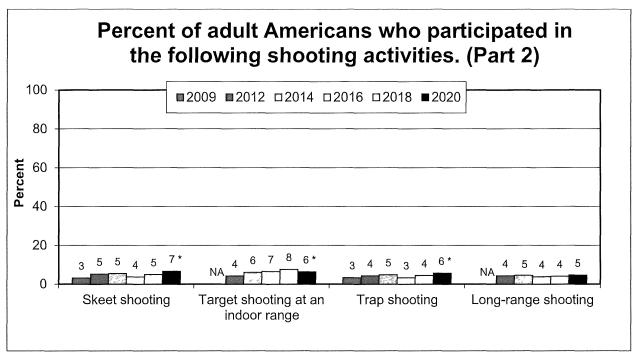
TRENDS IN PARTICIPATION IN TARGET AND SPORT SHOOTING

The 2020 adult participation rate in target/sport shooting overall was 24.1%, an increase over the 15.1% rate among adult Americans in 2009 and slightly higher than the 2018 rate of 22.2% (the difference between 2018 and 2020 is not statistically significant). The rate of participation in nearly every shooting activity is higher in 2020 than in any other year, as shown in the next two graphs. The exception is *target shooting at an indoor range*, which is significantly down from 2018 ($p \le 0.05$). On the graphs, statistical significance between 2018 and 2020 is indicated by asterisks; six of the nine differences are statistically significant (p < 0.05).



^{*}Statistically significant difference between 2018 and 2020.

Target shooting with a modern sporting rifle is separate from target shooting with a rifle (the former is not a subset of the latter).



No data on shooting in an indoor or outdoor range and on long-range shooting were gathered in 2009.

There were higher numbers in 2020 compared to 2018 for every shooting activity.

Activity	Estimated Total Participants (ages 18 years old and older)					% Change Compared to 2018	
National	in 2009	in 2012	in 2014	in 2016	in 2018	In 2020	
Any target shooting or sport shooting	34,382,566	40,779,651	51,226,765	49,361,637	52,073,224	56,449,334	+8.4
Target shooting with a rifle	24,045,795	26,822,425	31,764,116	27,949,753	32,169,412	39,370,514	+ 22.4
Target shooting with a modern sporting rifle	8,868,085	11,976,702	16,267,924	13,986,528	18,327,314	21,313,424	+16.3
Target shooting with a handgun	22,169,700	28,209,283	34,221,107	33,276,976	38,182,610	43,552,855	+14.1
Skeet shooting	6,979,680	12,090,346	12,596,361	8,626,450	11,563,358	15,469,568	+33.8
Trap shooting	7,582,479	10,116,684	11,227,278	7,855,875	10,227,286	13,047,994	+27.6
Sporting clays	8,399,989	8,789,340	13,033,633	10,545,394	13,174,752	16,870,119	+28.0
Any clay shooting	11,597,841	17,758,371	18,396,758	15,792,273	18,765,126	23,200,498	+23.6
Long-range shooting	na	9,972,991	10,434,630	8,881,155	9,272,382	10,870,784	+17.2
3-gun shooting	na	4,127,049	3,837,132	3,902,990	4,020,531	5,187,494	+29.0

Target shooting with a modern sporting rifle is separate from target shooting with a rifle (the former is not a subset of the latter).

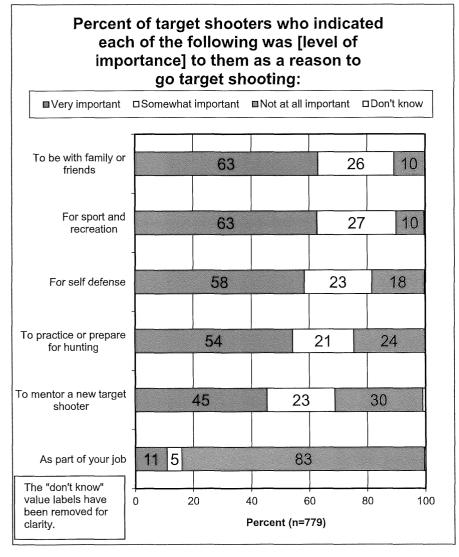
^{*}Statistically significant difference between 2018 and 2020.

DAYS OF PARTICIPATION IN TARGET AND SPORT SHOOTING

The tabulation at the right shows the mean and median days spent in the various shooting activities, among those who participated in each activity. Nationally, the highest mean days of participation is in target shooting with a handgun, followed closely by target shooting with a modern sporting rifle, long-range shooting, and target shooting with a traditional rifle.

Activity	Mean Days Spent on Activity in 2020	Median Days Spent on Activity in 2020	
National			
Target shooting with a traditional rifle	11.90	5	
Target shooting with a modern sporting rifle	12.69	5	
Target shooting with a handgun	13.58	5	
Trap shooting	9.92	5	
Skeet shooting	7.42	4	
Sporting clays	7.74	4	
3-gun shooting	8.71	4	
Long-range shooting	11.98	5	
Shooting at a range	9.64	4	

MOTIVATIONS FOR TARGET AND SPORT SHOOTING



Social/recreational reasons top the list of motivations. However, they are closely followed in the ranking by utilitarian reasons: for self defense and to prepare for hunting. (The graph is ranked by the percentage saying *very* important.)

DEMOGRAPHIC CHARACTERISTICS OF SHOOTERS

Shooters were much more likely to be male than were non-shooters: 71% of 2020 shooters were male, whereas only 41% of non-shooters were male. This means that slightly more than a quarter of shooters were female (28%). Shooters in 2020 tended to be younger than non-shooters. Sport shooters were much less urban and much more rural than were non-shooters in 2020. Finally, the Northeast Region was just slightly less associated with target/sport shooting participation: the Northeast made up only 16% of shooters, but it made up 19% of non-shooters.

CHARACTERISTICS OF NEW SHOOTERS

New shooters were defined as those who started shooting within the past 5 years. For calendar year 2020, new shooters made up 12% of sport shooters, having been initiated into the shooting sports within the previous 5 years. This is the lowest percentage since 2012 when the surveys started tracking this. One reason for this is that the surge in shooting participation of a decade ago—when many new shooters were attracted to the sport—is moving through time, and those new shooters in 2012 are no longer new shooters. If they stuck with it, they are now established shooters. Note that the definition of new shooter uses a 5-year timeframe *from the date of each survey*.

Once they were thus defined, new shooters were compared to established shooters to see how they differ. New shooters tend to be less "traditional" than established shooters—meaning that they are less of the traditional type (the traditional type being white, male, rural, and initiated into shooting in a family setting).

Regarding the types of firearms used by the two groups, established shooters have a markedly higher percentage using each type of equipment, although the two groups are closest together in handgun use. In particular, established shooters have a much higher rate of use of a traditional rifle, shotgun, and modern sporting rifle, compared to new shooters. New shooters are much less likely than established shooters to have grown up around firearms. Only 56% of new shooters grew up in a firearm family, while 84% of established shooters did.

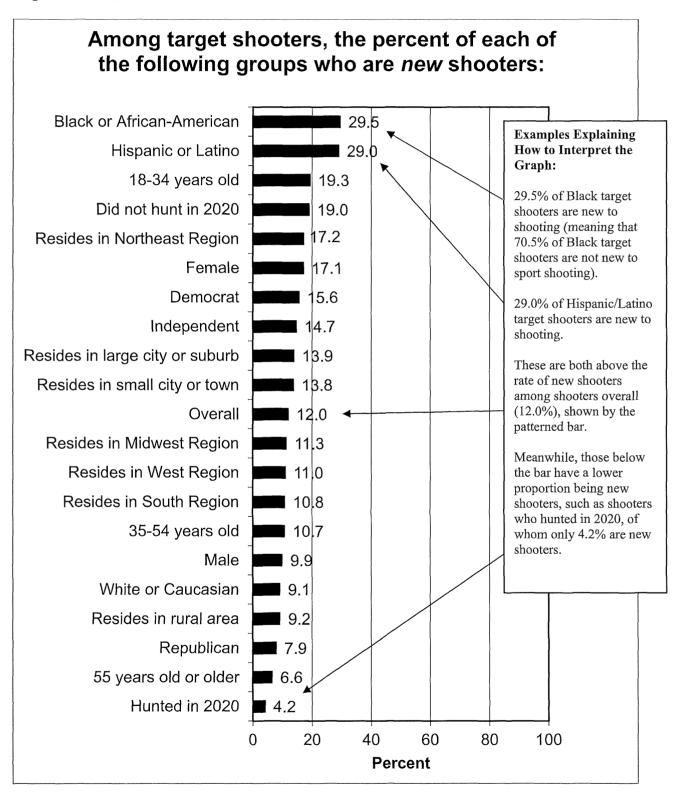
Several other demographic characteristics point toward nontraditional participation among new shooters, who are more likely to be female than are established shooters. New shooters are more likely to be non-white than are established shooters, and they are more likely to be urban/suburban than are established shooters.

Motivations for sport shooting were also examined in this comparison of new and established sport shooters. For each reason with two exceptions, established shooters have a higher percentage saying that it is a *very* important reason for shooting, particularly shooting for sport and recreation, to prepare for hunting, and to mentor a new shooter. The exceptions are self defense and as part of a job, both of which are nearly equal between the two groups.

The trends suggest that shooting for self defense remains high among new shooters (it went up markedly in 2018). On the other hand, shooting to be with family and friends is down in importance among new shooters, relative to previous years.

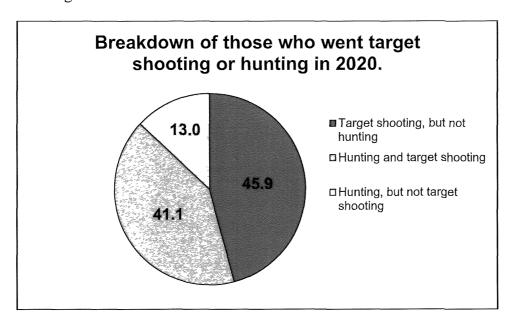
Finally, this section's final analysis has multiple demographic characteristics on a single graph, which shows those characteristics that are associated with being a new shooter. Black/African-American and Hispanic/Latino shooters are correlated with being a new shooter. Other groups

associated with being new to shooting are young shooters, non-hunting shooters, Northeast Region shooters, and female shooters.

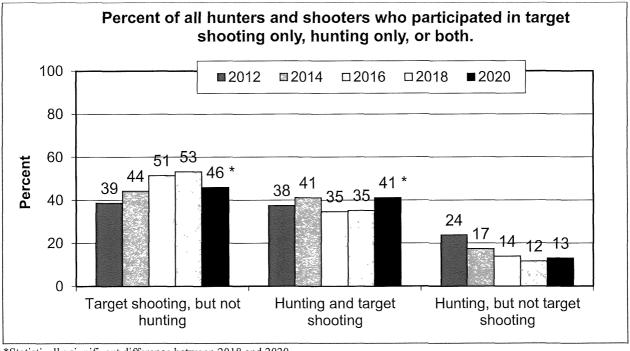


OVERLAP OF PARTICIPATION IN TARGET SHOOTING AND HUNTING

The pie graph below shows the proportions of hunting/shooting participants who went target shooting, hunting with firearms, or both in 2020. The entire pie consists of those who *either* hunted with firearms or went target/sport shooting. Just under half of this pool went target/sport shooting but did not hunt.



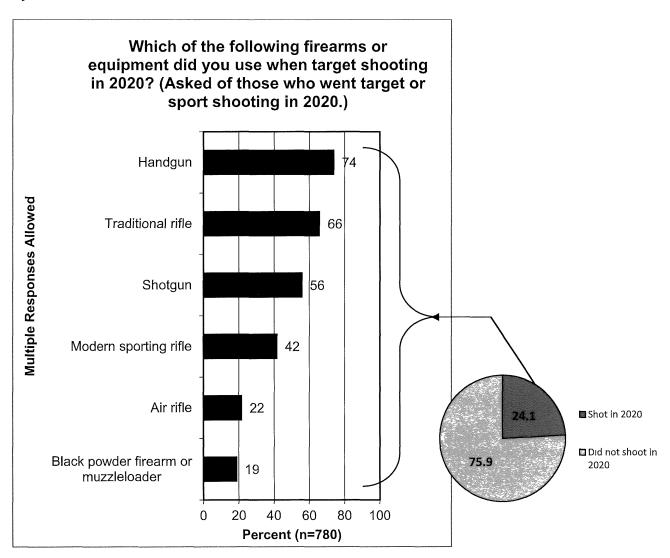
The trends analysis found that hunting took a bigger share of the participation breakdown, with hunting and target shooting as well as hunting, but not target shooting being higher in 2020 than they were in 2018, the former being statistically significant ($p \le 0.05$). In looking at the entire time period, however, target shooting still has a bigger share now than it did in 2012, at the expense of hunting. Asterisks indicate statistical significance between 2018 and 2020.



^{*}Statistically significant difference between 2018 and 2020.

TYPES OF FIREARMS USED IN TARGET OR SPORT SHOOTING

The following graph shows the percentages of target or sport shooters using various types of firearms (in total, 24.1% of all adult U.S. residents went target or sport shooting). At the top of the list are handguns and traditional rifles—both used by two thirds or more of sport shooters. This is followed by shotguns, being used by just more than half, and modern sporting rifles, used by a bit less than half.



NONTRADITIONAL SHOOTERS

There are seven characteristics that were used to identify nontraditional shooters, as presented in the table below. Each variable was made to be dichotomous, meaning each had two sides: a variable had either a traditional or nontraditional side. Most of these characteristics were based on a single survey question, but two characteristics were based on the results of multiple questions. The characteristics and the question responses on which they are based are shown in the tabulation that follows.

Nontraditional Characteristic	Question Used as Basis
	When you were growing up, did your family own any
Not growing up in a household with a	firearms?
firearm that was actively used at least	(IF YES) When you were growing up, about how many
two times per year	times per year did someone in your family use the firearm
	for target shooting?
Did not shoot until an adult	How old were you when you first went target shooting?
First experienced shooting with a	Which of the following firearms did you use when you
handgun or a modern sporting rifle	first learned how to target shoot?
Not mentored by a father or other	Did you have a person or group who taught you how to
close male relative	shoot?
Close male relative	(IF YES) Who or which group taught you?
Ethnically non-white	What races or ethnic backgrounds do you consider
Ethineany hon-white	yourself? Please mention all that apply.
Female	Respondent's gender.
	Do you consider your place of residence to be a large city
Urban/suburban	or urban area, a suburban area, a small city or town, a rural
	area on a farm or ranch, or a rural area not on a farm or
	ranch?

For the purposes of this analysis, a respondent was nontraditional if four of the seven characteristics were nontraditional—in other words, if more than half of the characteristics were in the nontraditional side of the dichotomy. In the sample of shooters, 28% had at least four of the seven variables in the nontraditional side; 72% of shooters were considered traditional. These two groups (traditional and nontraditional shooters) were then crosstabulated by region, by their reasons for shooting, by what shooting activities they did, by the types of firearms they shot, and by the number of days that they did various shooting activities.

The findings suggest that the Northeast and South Regions have the highest percentages of shooters who are nontraditional shooters.

Nontraditional shooters are less concerned about being with family and friends when they shoot, compared to traditional shooters. They also put less importance on shooting for sport and recreation, to prepare for hunting, and to mentor a new shooter. They are about the same in the importance of training for self defense.

Nontraditional shooters are target shooting with handguns at a slightly higher rate than traditional shooters. Also, they are shooting in indoor ranges at a much higher rate than traditional shooters.

Nontraditional shooters tend to shoot fewer days than traditional shooters. They have a lower mean number of days for each type of shooting.

LIKELIHOOD TO GO TARGET OR SPORT SHOOTING IN THE FUTURE

Among adult Americans overall, those who shot as well as those who did not shoot, 23% say that it is *very* likely that they will go shooting in the next 2 years. In looking at the percentages among those who shot and those who did not, 61% of those who shot in 2020 are *very* likely, while only 12% of those who did not shoot in 2020 are *very* likely to go shooting in the next 2 years.

Demographic analyses compared those who say that they are *very* likely to those who are *not* at all likely, thereby giving some insight into these people. (Those who are *somewhat* likely were dropped out of this analysis.) These crosstabulations on likelihood were then run on those who did not shoot in 2020 and then those who shot in 2020.

The first analysis is among those who did *not* go shooting in 2020, comparing those who say that they are *very* likely to go shooting versus those who say that they are *not at all likely* to go shooting in the next 2 years. Among those who did not go shooting in 2020, men show a little more interest in target/sport shooting than women.

Among those who did *not* go shooting in 2020, men show a little more interest in target/sport shooting. Men make up 58% of those *very* likely to shoot but only 37% of those *not at all* likely to shoot in the next 2 years (note that this is among non-shooters in 2020). Middle-aged people have a greater propensity to say that they are *very* likely to go target/sport shooting in the next 2 years, compared to either the youngest category or the oldest category.

Among non-shooters, rural and small city/town residency is positively correlated with being *very* likely to go shooting in the next 2 years. Regionally, the West shows a slightly greater percentage in the *very*-likely-to-shoot category.

Note that the above looked at those who had *not* participated in target or sport shooting in 2020. Those who *had* participated in 2020 were also analyzed. Of 2020 shooting participants, 61% are *very* likely to go shooting in the next 2 years. The same demographic analyses were run comparing those who are *very* likely to those who are *not at all* likely (again ignoring the *somewhat* likely).

The gender crosstabulation found that women appear to be more likely to drop out of target/sport shooting: females make up only 24% of those who had shot in 2020 and are *very* likely to continue (i.e., shoot in the next 2 years), while they make up 37% of those who had shot in 2020 but are likely to quit (i.e., not at all likely to shoot in the next 2 years). The age crosstabulation does not show consistent differences in one direction or the other; however, when combining age and gender, older females have a disproportionate share of the group that plans to quit.

The place-of-residence crosstabulation found that rural areas and small cities/towns have a higher representation of 2020 shooters who are *not at all* likely to go shooting, compared to those shooters who plan to continue shooting in the next 2 years. The regional crosstabulation does not show large differences.

REASONS FOR NOT PARTICIPATING IN TARGET OR SPORT SHOOTING

Those who did not participate in target/sport shooting were asked about their reasons for not doing so (75.9% of U.S. residents did *not* go target or sport shooting in 2020). Other than lack of interest, important reasons include lack of equipment, COVID-19 (which closed some indoor ranges), lack of time, and age/health.

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INTRODUCTION AND METHODOLOGY

This 2021 shooting participation report (about participation in 2020) is the latest in a series of studies conducted for the National Shooting Sports Foundation (NSSF) by Responsive Management. The first study was conducted about shooting in calendar year 2009, and then subsequent studies were conducted every two years starting with a look at calendar year 2012. These studies determined regional and national participation rates in target and sport shooting. Following the methodology of previous studies, this study entailed a telephone survey of U.S. residents ages 18 years old and older, using a probability-based random sample that is fully reflective of the U.S. population as a whole. Specific aspects of the research methodology are discussed below.

USE OF TELEPHONES FOR THE SURVEY

Telephones were selected as the preferred sampling mode for several reasons. Past research on surveys by Responsive Management on shooting sports or other outdoor recreation has shown that respondents who do not actively participate in outdoor recreation are more likely to respond to a telephone survey than a mail or online survey, as there is more effort involved in responding via mail or online. Respondents who did not participate in outdoor recreation will readily tell an interviewer verbally that they did not do so, but they are much less motivated to answer even a single survey question on paper and mail it in or go to a web address and respond online. For this reason, surveys performed via mail or online have an inherent risk of overestimating participation due to the decreased response from those who did not actively participate.

Furthermore, telephone surveys allow respondents who cannot or will not respond to a mail or online survey to participate. Mail and online surveys systematically exclude those who have difficulty reading. In 2016, the U.S. Department of Education's National Institute of Literacy estimated that up to 43% of the general population of the United States cannot read beyond a "basic level," suggesting that many might be reticent to complete a mail or online survey they must read to themselves. In addition, those with poor or limited internet service or who are intimidated by technology may be reticent to complete a survey online. In a telephone survey, however, a live interviewer reads the survey questions, clarifies them if necessary, and assists the respondent with completing the survey, which reduces bias and increases response to the survey.

Finally, telephone surveys also have fewer negative effects on the environment than do mail surveys because of the reduced use of paper, reduced energy consumption for delivering and returning the questionnaires, and reduced quantity of material to be disposed of after the survey.

QUESTIONNAIRE DESIGN

The NSSF and Responsive Management developed the survey questionnaire cooperatively, based in part on the previous surveys. As in those previous surveys on sport shooting participation, the survey used a ruse line of questioning at the beginning of the survey. This was done because the main objective of the survey was to determine national and regional participation rates in the shooting sports, and the survey was worded to avoid bias that would arise from the tendency for those who do *not* shoot to refuse to participate in a survey about shooting. Therefore, the survey starts by asking about some general activities, mixing shooting and hunting participation in with participation in other non-shooting activities.

The telephone survey was computer coded for Responsive Management's computer-assisted telephone interviewing (CATI) process. An important aspect of this process is that the computer

controls which questions are asked and allows for immediate data entry. Each telephone survey, however, is administered by a live interviewer. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey.

SURVEY SAMPLE

The probability-based random sample was fully reflective of the U.S. population as a whole, and each U.S. resident had an approximately equal chance of being in the sample. The methodology used a dual-frame sample, which consisted of a random sample of landline telephones and a random sample of cell phone numbers, which ensured that all telephone users had an approximately equal chance of being called. The scientific sampling plan entailed obtaining a target number of interviews in each state, from both landlines and cell phones, so that the number of respondents in each state in the sample would be proportional to the state's population and, by extension, within the United States population as a whole.

The probability-based sample was obtained from Marketing Systems Group, a company that specializes in providing scientifically valid telephone survey samples. The overall sample with landlines and cell phones was representative of all Americans 18 years old and older.

TELEPHONE INTERVIEWING FACILITIES

For this survey, a combination of in-house and home-based calling was conducted. Responsive Management has a central surveying site that allows for rigorous quality control over the interviews and data collection staffed by interviewers with experience conducting computer-assisted surveys. Survey Center Managers monitor these in-house calls. Typically, all calling is done from Responsive Management's in-house telephone interviewing facilities. However, due to coronavirus distancing, some interviewers conducted the surveys from their home locations, as well. Nonetheless, Survey Center Managers were able to remotely monitor these home-based interviews in real time and provide rigorous quality control over the interviews and data collection.

To further ensure the integrity of the telephone survey data, Responsive Management has interviewers who have been trained according to the standards established by the Council of American Survey Research Organizations. Methods of instruction included lecture and role-playing. The Survey Center Managers and other professional staff conducted a conference call briefing with the interviewers prior to the administration of this survey. Interviewers were instructed on type of study, study goals and objectives, handling of survey questions, interview length, termination points and qualifiers for participation, interviewer instructions within the survey questionnaire, reading of the survey questions, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey questionnaire.

INTERVIEWING DATES AND TIMES

Telephone surveying times were Monday through Friday from 10:00 a.m. to 9:00 p.m., Saturday from noon to 8:00 p.m., and Sunday from 2:00 p.m. to 9:00 p.m., local time. A five-callback design was used to maintain the representativeness of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all to participate. When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. The survey was conducted in February and March 2021; note that the report shows participation in 2020. Responsive Management obtained 3,016 completed interviews.

TELEPHONE SURVEY DATA COLLECTION AND QUALITY CONTROL

As previously mentioned, CATI software was used for data collection. The survey data were entered into the computer as each interview was being conducted, eliminating manual data entry after the completion of the survey and the concomitant data entry errors that may occur with manual data entry. The survey questionnaire was programmed so that CATI branched, coded, and substituted phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection. As indicated previously, each telephone survey was administered by a live interviewer; the CATI software only directs the interviewer to the proper questions, depending on previous responses given in the survey, but the interviewer reads the questions to the respondent.

The Survey Center Managers and statisticians monitored the data collection, including monitoring of the actual telephone interviews without the interviewers' knowledge to evaluate the performance of each interviewer and ensure the integrity of the data. The survey questionnaire itself contained error checkers and computation statements to ensure quality and consistent data. After the surveys were obtained by the interviewers, the Survey Center Managers and/or statisticians checked each completed survey to ensure clarity and completeness.

DATA ANALYSIS

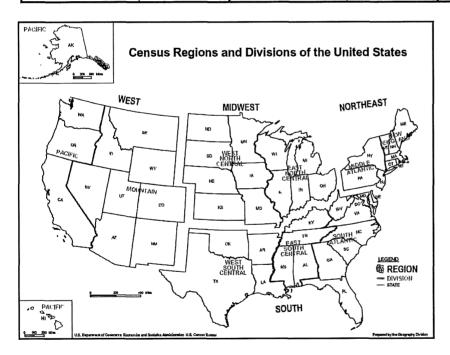
The analysis of data was performed using IBM SPSS Statistics as well as proprietary software developed by Responsive Management. There were set goals for the numbers of interviews in each state. In the raw data, the demographic breakdown of the resulting sample was very close to the reported demographic breakdown of the population as a whole in each state, according to U.S. Census data. However, the results were slightly weighted by age, gender, and race/ethnicity to be exactly proportional to the total population of each region (U.S. Census Bureau regions, which are those also used by the U.S. Fish and Wildlife Service) and of the United States as a whole.

On open-ended questions, after the data were obtained, analysts reviewed each written response to assign it to the appropriate response category. Overall, analysts assigned approximately 1,000 written comments into response categories to be quantified on "Multiple Responses Allowed" graphs. (The different types of questions are defined on page 5.)

In the analysis, each state was sampled proportionately to preserve proper distribution within each region and in the U.S. as a whole. The analysis was conducted on a regional basis and on the U.S. as a whole, but not at the state level. The number of completed interviews from each state is shown in the tabulation that follows.

As mentioned, the states were grouped into regions to aid in comparison and analysis. The four main U.S. Census Bureau regions were used, as shown on the map on the following page from the U.S. Census Bureau website.

State of Residence	Completed Interviews	State of Residence	Completed Interviews	terviews State of Residence	
Alabama	50	Louisiana	45	Ohio	97
Alaska	36	Maine	27	Oklahoma	36
Arizona	64	Maryland	57	Oregon	54
Arkansas	66	Massachusetts	69	Pennsylvania	133
California	159	Michigan	99	Rhode Island	11
Colorado	52	Minnesota	52	South Carolina	48
Connecticut	38	Mississippi	51	South Dakota	44
Delaware	11	Missouri	58	Tennessee	65
Florida	160	Montana	50	Texas	120
Georgia	96	Nebraska	18	Utah	47
Hawaii	15	Nevada	34	Vermont	24
Idaho	36	New Hampshire	30	Virginia	99
Illinois	113	New Jersey	87	Washington	81
Indiana	63	New Mexico	20	West Virginia	33
Iowa	30	New York	138	Wisconsin	57
Kansas	30	North Carolina	95	Wyoming	39
Kentucky	42	North Dakota	30	Washington D.C.	7
				TOTAL	3,016



On questions that asked respondents to provide a number (e.g., number of days target shooting), graphs or tables may show ranges of numbers rather than the precise numbers. Nonetheless, in the survey each respondent provided a precise number, and the dataset includes this precise number, even if the graph shows only ranges of numbers. Note that the calculation of means and medians used the precise numbers that the respondents provided.

SAMPLING ERROR

Throughout this report, findings of the telephone survey are reported at a 95% confidence interval. For the entire sample, the sampling error is at most plus or minus 1.78 percentage points. This means that if the survey were conducted 100 times on different samples that were selected in the same way, the findings of 95 out of the 100 surveys would fall within plus or minus 1.78 percentage points of each other. Sampling error was calculated using the formula

described below, with a sample size of 3,016 and a population size of 255,200,373 United States residents 18 years old and older (population data obtained from the U.S. Census Bureau).

Sampling Error Equation

$$B = \sqrt{\frac{N_p(.25)}{N_s} - .25} \\ \sqrt{\frac{N_p(.25)}{N_p - 1}} \\ \sqrt{\frac{1.96}{N_p}}$$
 Where: B = maximum sampling error (as decimal)
$$N_p = \text{population size (i.e., total number who could be surveyed)} \\ N_S = \text{sample size (i.e., total number of respondents surveyed)}$$

Derived from formula: p. 206 in Dillman, D. A. 2000. Mail and Internet Surveys. John Wiley & Sons, NY.

Note: This is a simplified version of the formula that calculates the <u>maximum</u> sampling error using a 50:50 split (the most conservative calculation because a 50:50 split would give maximum variation).

ADDITIONAL INFORMATION ABOUT THE PRESENTATION OF RESULTS IN THE REPORT

In examining the results, it is important to be aware that the questionnaire included several types of questions:

- Single response questions: Some questions allow only a single response.
- Multiple response questions: Other questions allow respondents to give more than one response or choose all that apply. Those that allow more than a single response are indicated on the graphs with the label, "Multiple Responses Allowed."
- Closed-ended questions have an answer set from which to choose.
- Open-ended questions are those in which no answer set is presented to the respondents; rather, they can respond with anything that comes to mind from the question.
- Scaled questions: Many closed-ended questions (but not all) are in a scale, such as one that ranges from very important to not at all important.
- Series questions: Many questions are part of a series, and the results are primarily intended to be examined relative to the other questions in that series (although results of the questions individually can also be valuable). Typically, results of all questions in a series are shown together.

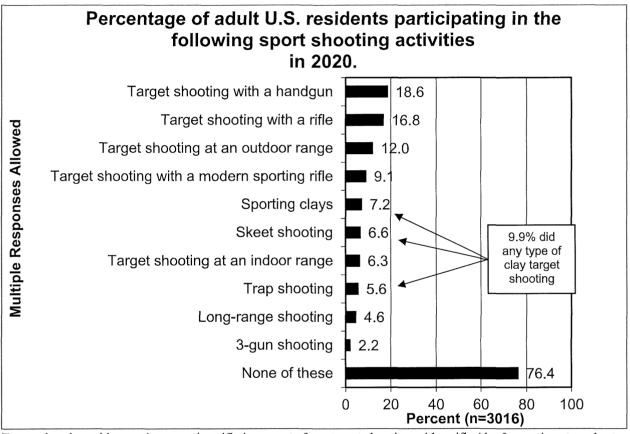
Results are shown for nationwide results, followed by regional crosstabulations. Several other crosstabulations are presented as well; for example, additional crosstabulations have been run to further evaluate the characteristics of new shooters.

In addition, trends graphs are included to show 2020 results alongside results from 2009, 2012, 2014, 2016, and 2018 for comparison. For some trends, statistical significance is indicated by the notation, $p \le 0.05$, meaning it is statistically significant at a 95% confidence interval between 2018 and 2020.

SURVEY RESULTS

PARTICIPATION IN TARGET AND SPORT SHOOTING

The 2020 rate of target/sport shooting participation among adults in the United States was 24.1%, which extrapolates to an estimated 56.4 million adults participating in any type of target or sport shooting in 2020. The graph below shows that the most popular types were target shooting with a handgun (18.6% participated), target shooting with a rifle (16.8%), and target shooting at an outdoor range (12.0%). Respondents could have done multiple shooting activities. The actual numbers of participants are presented in a tabulation following the regional graphs.

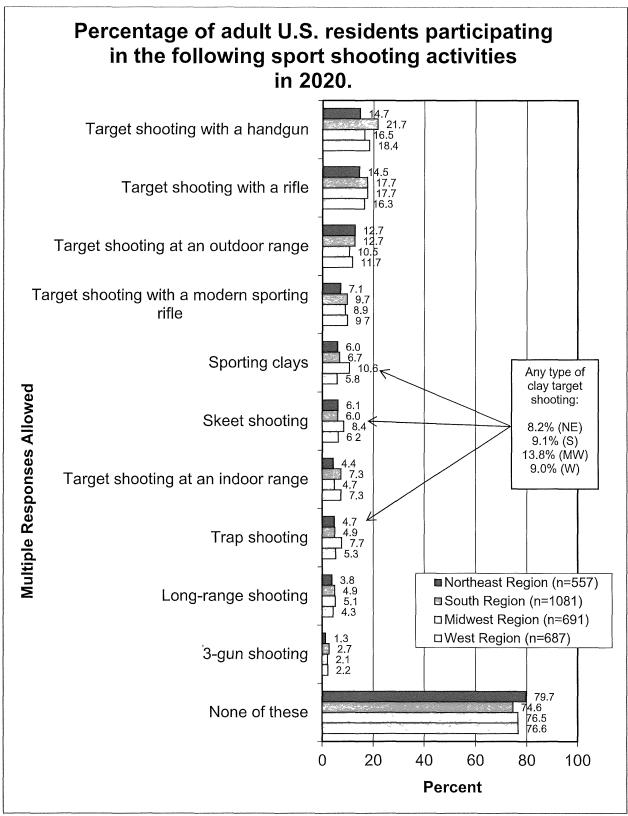


Target shooting with a modern sporting rifle is separate from target shooting with a rifle (the former is not a subset of the latter).

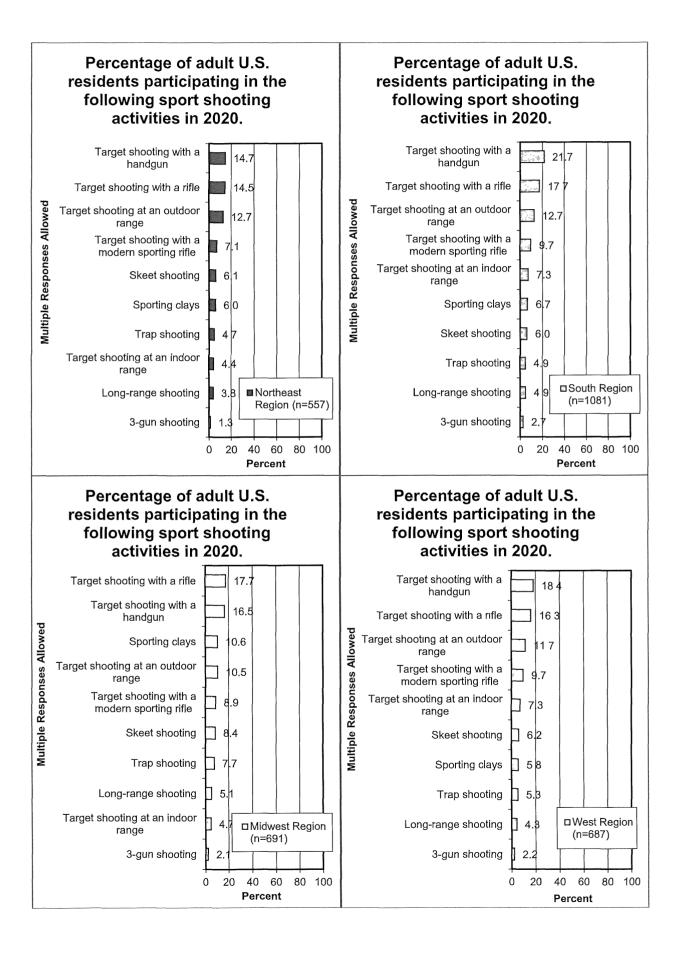
To put the participation rate of shooting in perspective, that overall participation rate of 24% is well below the percentage of households with firearms, estimated by both Gallup and the Pew Research Center¹ to be more than 40%. Comparatively, Responsive Management has also found that approximately 42% of Americans either own a firearm or live in a household with a firearm. While the percentage of households and the percentage of people are not the same—because all households are not the same size—the Gallup, Pew, and Responsive Management estimates are close to each other at approximately 40%. Therefore, it is reasonable to assume that well more than 24% of people are in a household with access to a firearm. Removing the approximately 60% of households that do not have a firearm, the participation rate means that a little more than half of people with access to a firearm went shooting in 2020.

¹ The Gallup poll was one of its series called, *Gallup Poll Social Series* (one of a dozen polls that encompass this series). The results were downloaded from the Gallup website. The Pew Research Center *Factank* page on its website contains this finding in an article titled "7 facts about guns in the U.S." by J. Gramlich and K. Schaeffer.

The regional graph is presented below, followed by an individual graph for each region with the activities ranked from highest to lowest participation in each region.



Target shooting with a modern sporting rifle is separate from target shooting with a rifle (the former is not a subset of the latter).



The tabulation below and continued on the next page shows estimates of numbers of participants nationally and by region.

Sport and Target Shooting Participation in 2020

	Estimated Total	95% Confidence Interval		
Activity	Participants (ages 18 years and older)	Lower Limit	Upper Limit	
National				
Any target shooting or sport shooting	56,449,334	53,036,385	59,862,282	
Target shooting with a rifle	39,370,514	35,750,187	42,990,841	
Target shooting with a modern sporting rifle	21,313,424	18,392,021	24,234,827	
Target shooting with a handgun	43,552,855	40,840,286	46,265,424	
Trap shooting	13,047,994	10,412,883	15,683,105	
Skeet shooting	15,469,568	13,893,692	17,045,444	
Sporting clays	16,870,119	14,887,464	18,852,775	
Any clay	23,200,498	21,694,090	24,706,905	
Target shooting at an outdoor range	28,165,580	26,567,510	29,763,649	
Target shooting at an indoor range	14,664,740	13,066,670	16,262,810	
3-gun shooting	5,187,494	3,119,612	7,255,377	
Long-range shooting	10,870,784	9,135,842	12,605,727	
Northeast Region				
Any target shooting or sport shooting	9,097,190	7,741,330	10,453,050	
Target shooting with a rifle	6,240,817	5,134,599	7,347,036	
Target shooting with a modern sporting rifle	3,058,183	1,964,470	4,151,896	
Target shooting with a handgun	6,327,829	5,311,196	7,344,463	
Trap shooting	2,038,576	1,458,666	2,618,486	
Skeet shooting	2,624,426	1,951,780	3,297,073	
Sporting clays	2,577,176	1,999,215	3,155,138	
Any clay	3,543,820	2,900,855	4,186,785	
Target shooting at an outdoor range	5,471,671	4,702,305	6,241,038	
Target shooting at an indoor range	1,879,418	1,110,051	2,648,784	
3-gun shooting	570,826	-62,998	1,204,650	
Long-range shooting	1,641,769	1,320,464	1,963,073	
South Region				
Any target shooting or sport shooting	22,312,988	20,203,738	24,422,237	
Target shooting with a rifle	15,315,607	13,448,246	17,182,967	
Target shooting with a modern sporting rifle	8,440,521	6,808,043	10,072,999	
Target shooting with a handgun	18,792,191	17,155,937	20,428,445	
Trap shooting	4,291,699	3,177,560	5,405,837	
Skeet shooting	5,244,559	4,012,122	6,476,996	
Sporting clays	5,837,622	4,929,657	6,745,588	
Any clay	7,870,720	6,904,016	8,837,425	
Target shooting at an outdoor range	10,983,904	9,705,219	12,262,589	
Target shooting at an indoor range	6,355,506	5,076,820	7,634,191	
3-gun shooting	2,321,729	1,207,112	3,436,345	
Long-range shooting	4,290,187	3,556,944	5,023,430	

Target shooting with a modern sporting rifle is separate from target shooting with a rifle (the former is not a subset of the latter).

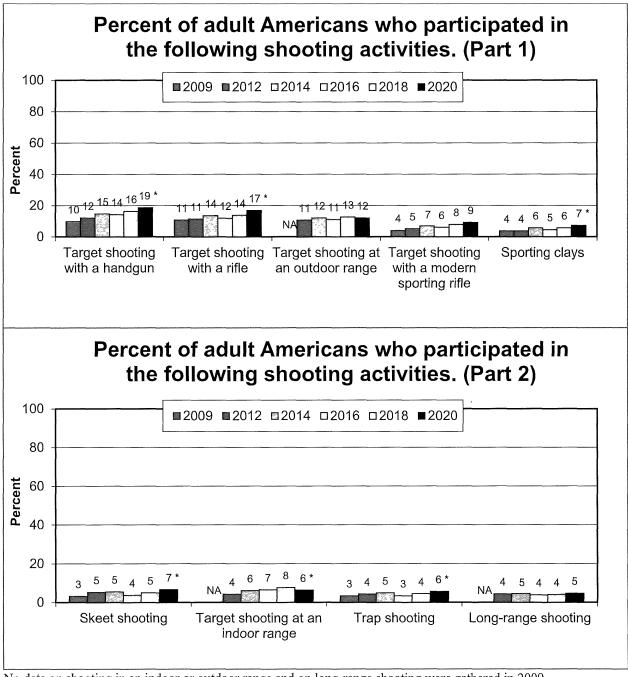
Sport and Target Shooting Participation in 2020 (continued)

	Estimated Total	95% Confidence Interval		
A -40-04	Participants			
Activity	(ages 18 years and	Lower Limit	Upper Limit	
	older)			
Midwest Region				
Any target shooting or sport shooting	12,079,399	10,469,587	13,689,210	
Target shooting with a rifle	8,972,381	7,623,916	10,320,845	
Target shooting with a modern sporting rifle	4,530,966	3,273,715	5,788,217	
Target shooting with a handgun	8,395,933	7,141,633	9,650,233	
Trap shooting	3,888,574	3,176,066	4,601,082	
Skeet shooting	4,270,088	3,357,379	5,182,798	
Sporting clays	5,372,741	4,605,361	6,140,121	
Any clay	6,987,896	6,416,403	7,559,389	
Target shooting at an outdoor range	5,349,964	4,420,449	6,279,479	
Target shooting at an indoor range	2,405,192	1,475,677	3,334,707	
3-gun shooting	1,080,111	305,182	1,855,039	
Long-range shooting	2,611,000	2,071,328	3,150,673	
West Region				
Any target shooting or sport shooting	12,909,761	11,257,308	14,562,213	
Target shooting with a rifle	8,825,030	7,427,155	10,222,905	
Target shooting with a modern sporting rifle	5,247,719	3,870,919	6,624,518	
Target shooting with a handgun	9,938,448	8,657,346	11,219,550	
Trap shooting	2,857,710	2,239,779	3,475,640	
Skeet shooting	3,359,131	2,312,796	4,405,466	
Sporting clays	3,134,134	2,410,599	3,857,670	
Any clay	4,850,254	3,929,973	5,770,535	
Target shooting at an outdoor range	6,343,711	5,267,103	7,420,318	
Target shooting at an indoor range	3,962,391	2,885,784	5,038,998	
3-gun shooting	1,199,436	334,577	2,064,294	
Long-range shooting	2,326,071	1,867,828	2,784,314	

Target shooting with a modern sporting rifle is separate from target shooting with a rifle (the former is not a subset of the latter).

TRENDS IN PARTICIPATION IN TARGET AND SPORT SHOOTING

The 2020 adult participation rate in target/sport shooting overall was 24.1%, an increase over the 15.1% rate among adult Americans in 2009 and slightly higher than the 2018 rate of 22.2% (the difference between 2018 and 2020 is not statistically significant). As shown below, the rate of participation in nearly every shooting activity is higher in 2020 than in any other year. The exception is *target shooting at an indoor range*, which is significantly down from 2018 ($p \le 0.05$). On the graphs, statistical significance between 2018 and 2020 is indicated by asterisks; six of the nine differences are statistically significant ($p \le 0.05$).



No data on shooting in an indoor or outdoor range and on long-range shooting were gathered in 2009. *Statistically significant difference between 2018 and 2020.

Target shooting with a modern sporting rifle is separate from target shooting with a rifle (the former is not a subset of the latter).

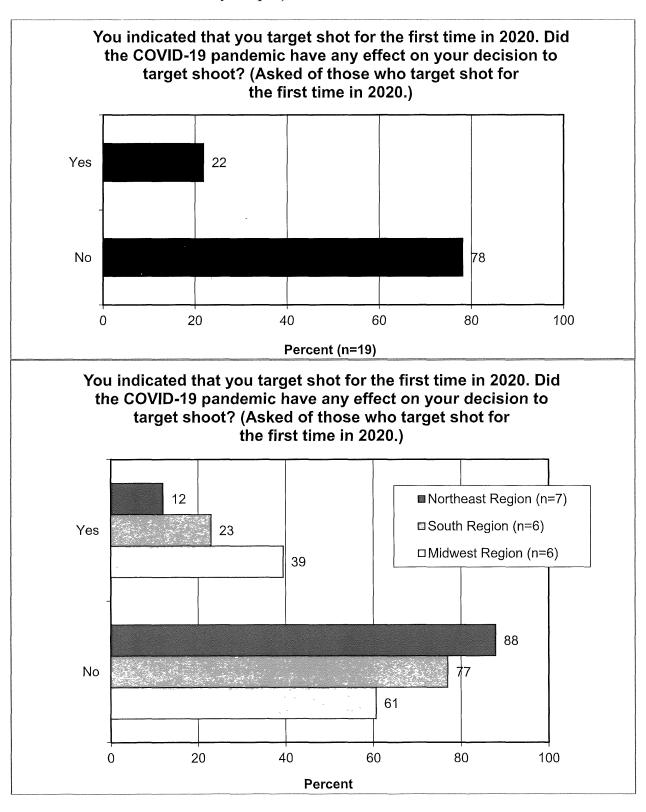
The tabulation below shows the number of shooters in the various activities (as opposed to the rate; note that a rate can stay the same but the number of participants can rise, if the total population rises, which it did in the United States throughout the time period). There were higher numbers in 2020 compared to 2018 for every shooting activity.

Activity	Estimated Total Participants (ages 18 years old and older)					% Change Compared to 2018	
National	in 2009	in 2012	in 2014	in 2016	in 2018	In 2020	
Any target shooting or sport shooting	34,382,566	40,779,651	51,226,765	49,361,637	52,073,224	56,449,334	+8.4
Target shooting with a rifle	24,045,795	26,822,425	31,764,116	27,949,753	32,169,412	39,370,514	+ 22.4
Target shooting with a modern sporting rifle	8,868,085	11,976,702	16,267,924	13,986,528	18,327,314	21,313,424	+16.3
Target shooting with a handgun	22,169,700	28,209,283	34,221,107	33,276,976	38,182,610	43,552,855	+14.1
Skeet shooting	6,979,680	12,090,346	12,596,361	8,626,450	11,563,358	15,469,568	+33.8
Trap shooting	7,582,479	10,116,684	11,227,278	7,855,875	10,227,286	13,047,994	+27.6
Sporting clays	8,399,989	8,789,340	13,033,633	10,545,394	13,174,752	16,870,119	+28.0
Any clay shooting	11,597,841	17,758,371	18,396,758	15,792,273	18,765,126	23,200,498	
Long-range shooting	na	9,972,991	10,434,630	8,881,155	9,272,382	10,870,784	
3-gun shooting	na	4,127,049	3,837,132	3,902,990	4,020,531	5,187,494	+29.0

Target shooting with a modern sporting rifle is separate from target shooting with a rifle (the former is not a subset of the latter).

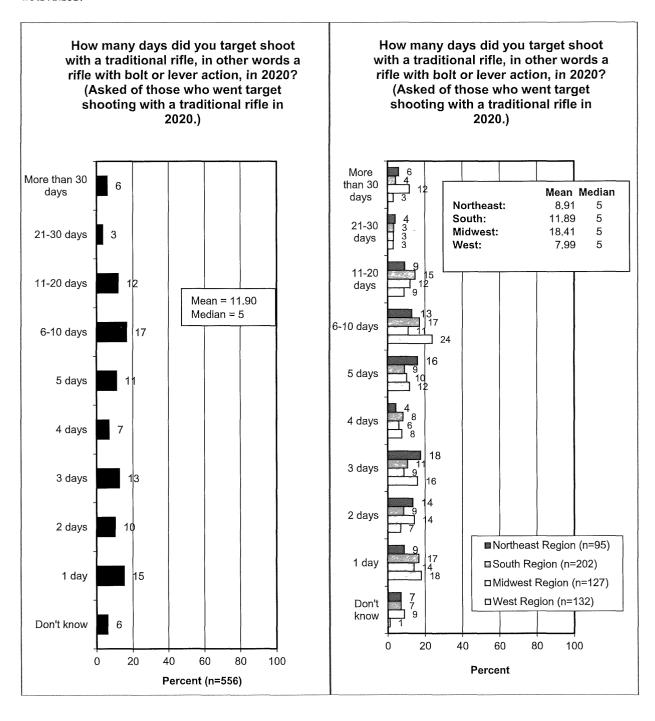
EFFECT OF COVID-19 ON INITIATION INTO SPORT SHOOTING PARTICIPATION

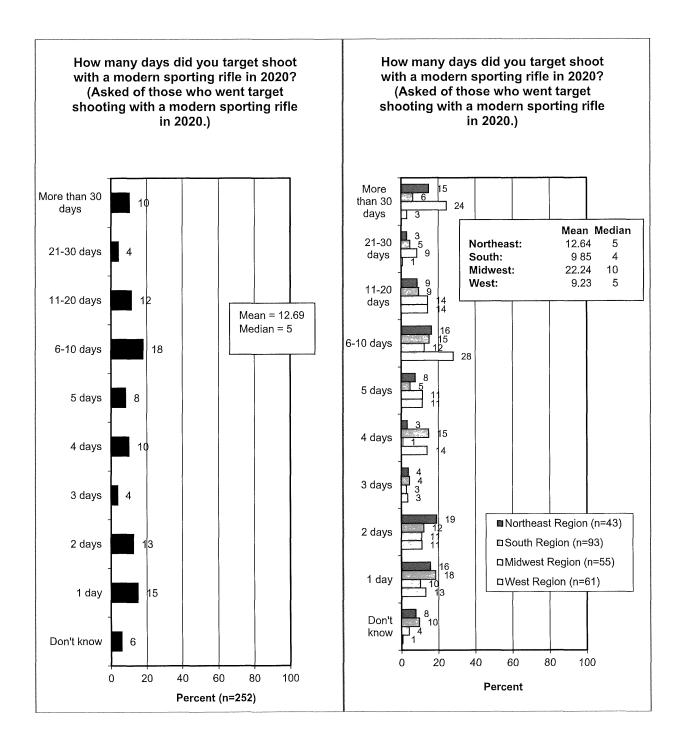
Among first-time sport shooters in 2020, approximately a quarter (22%) said that the COVID-19 pandemic played a role in their decision to start sport shooting. (There were no first-time sport shooters in the West in the survey sample.)

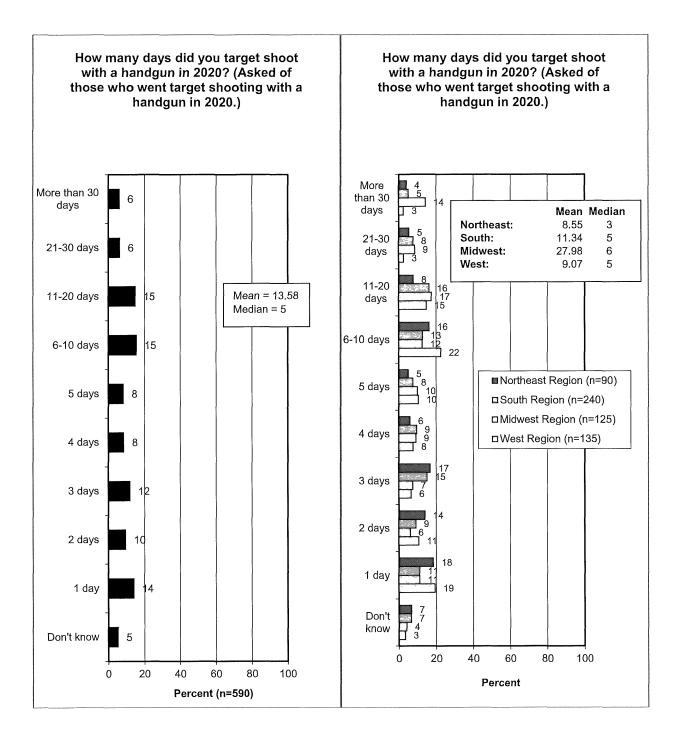


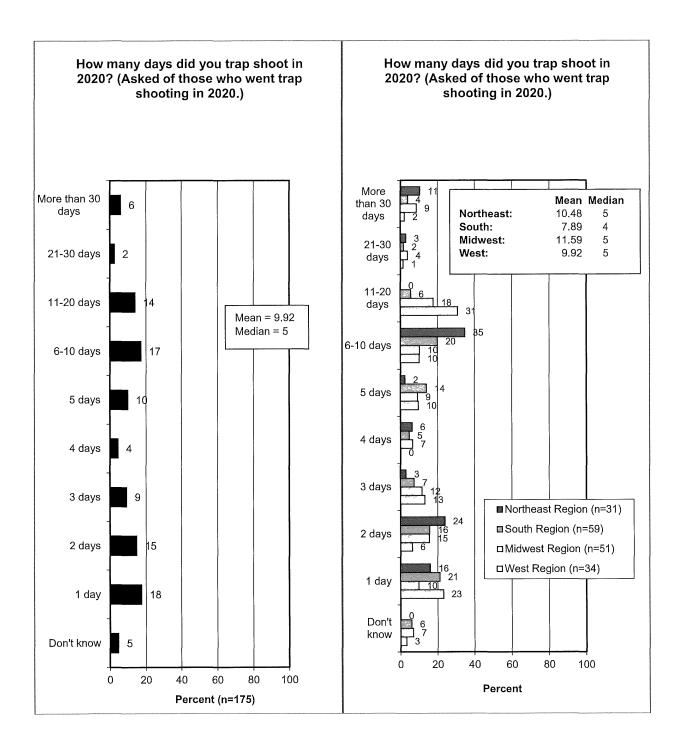
DAYS OF PARTICIPATION IN TARGET AND SPORT SHOOTING

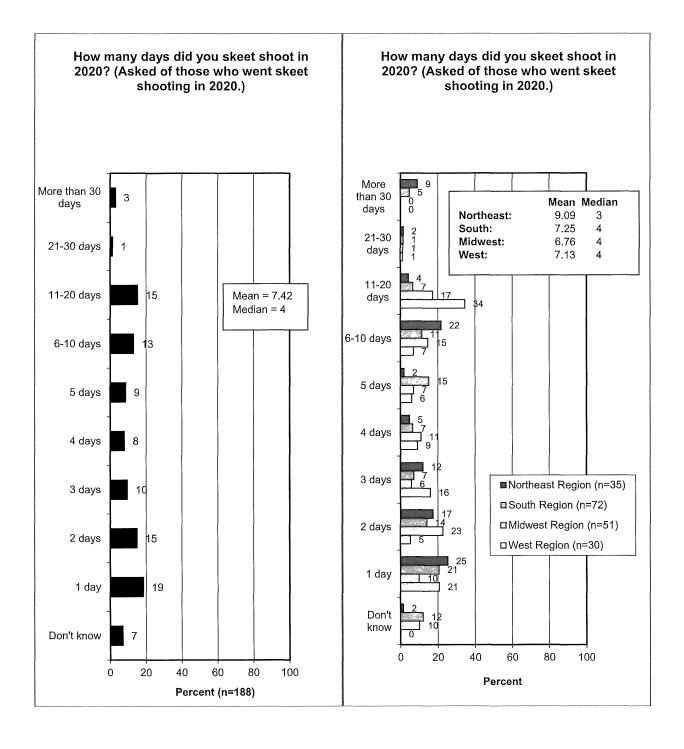
For each type of target or sport shooting, a graph shows the number of days of participation among those who participated. Regional graphs are also included for each activity. Following the graphs is a tabulation showing the mean and median number of days spent participating in the activities.

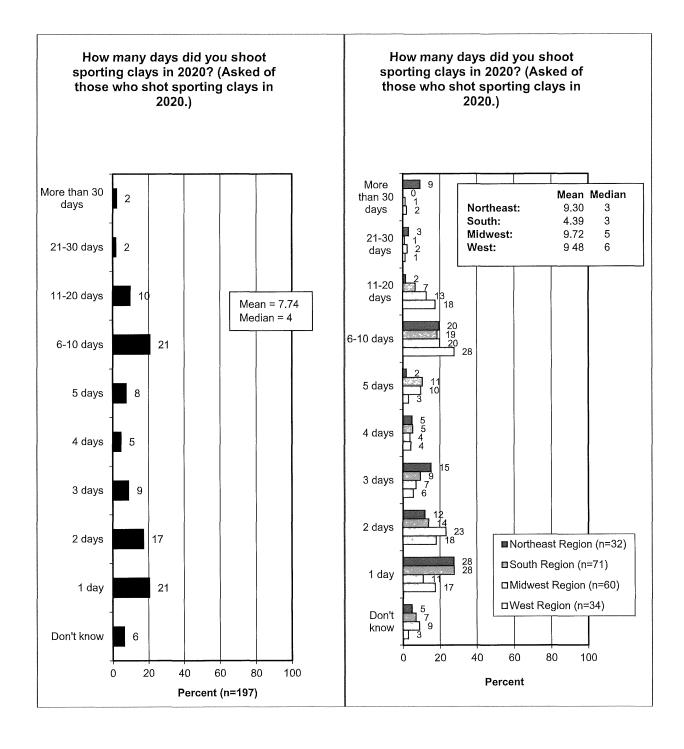


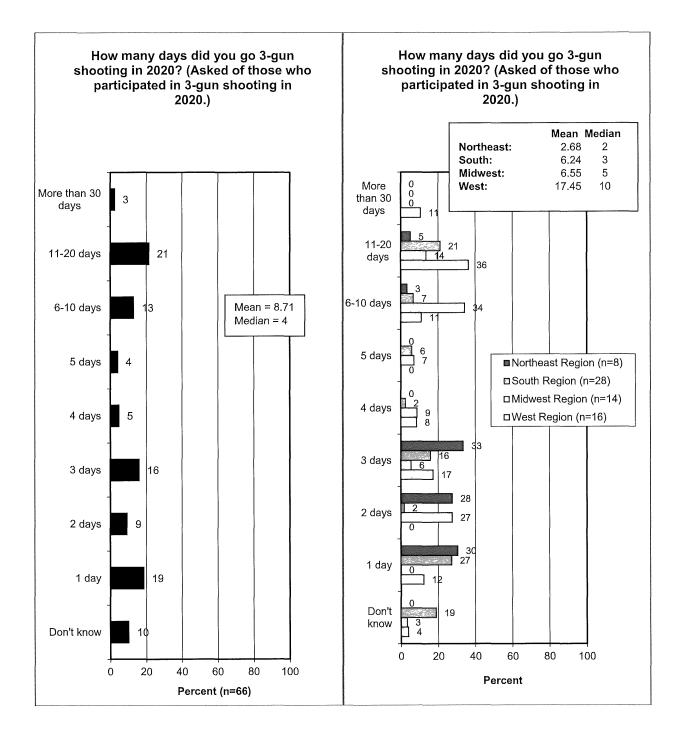


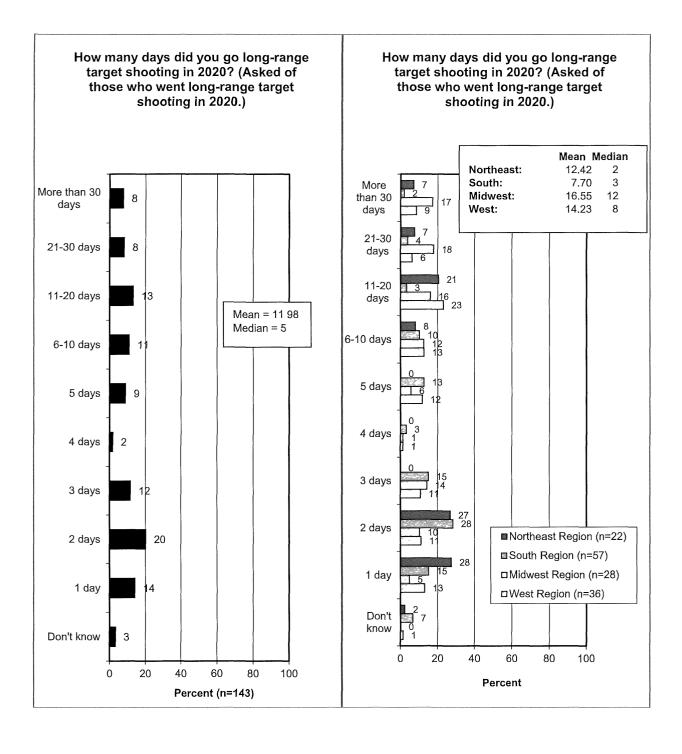


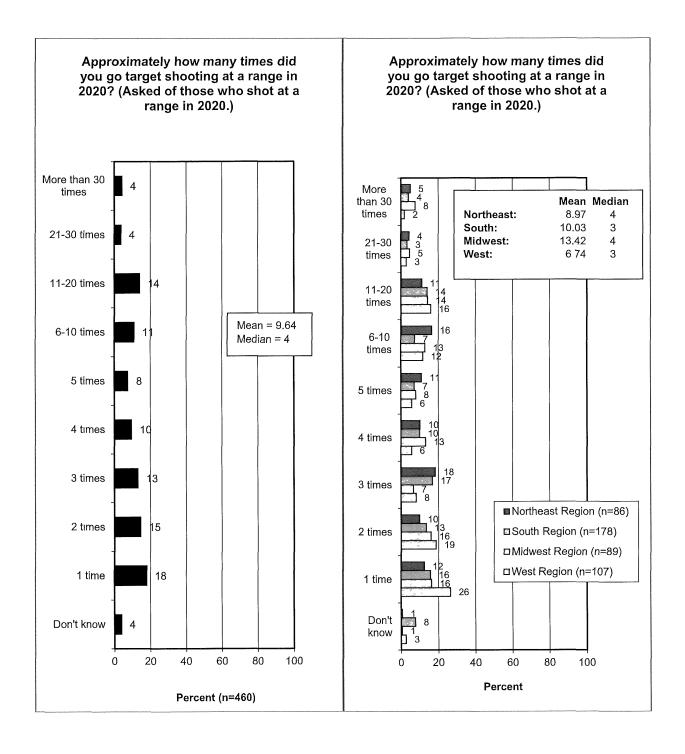








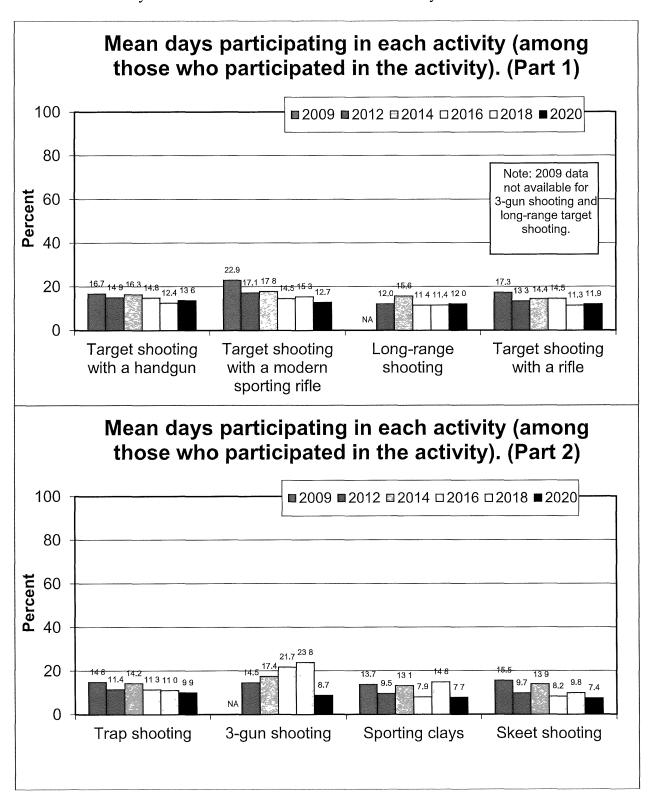




The tabulations below show the mean and median days spent in the various shooting activities, among those who participated in each activity. Nationally, target shooting with a handgun has the highest mean days of participation; the next nearest activities are target shooting with a modern sporting rifle, long-range shooting, and target shooting with a traditional rifle—all with means of more than 10 days. For the national results and each region, the top-ranked activity in mean days is dark green; any activity within 2.0 mean days of the top activity is light green.

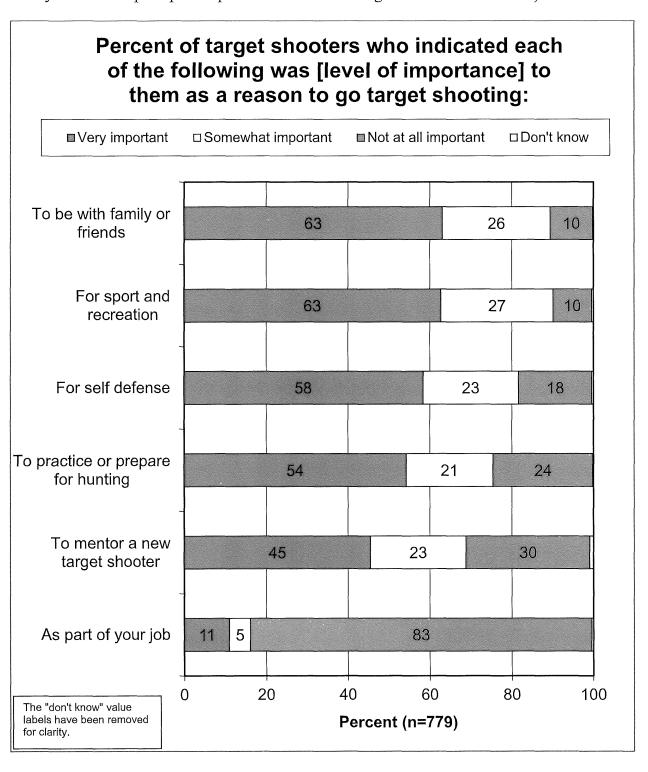
Activity	Mean Days Spent on Activity, 2020	Median Days Spent on Activity, 2020
National		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Target shooting with a traditional rifle	11.90	5
Target shooting with a modern sporting rifle	12.69	5
Target shooting with a handgun	13.58	5
Trap shooting	9.92	5
Skeet shooting	7.42	4
Sporting clays	7.74	4
3-gun shooting	8.71	4
Long-range shooting	11.98	5
Shooting at a range	9.64	4
Northeast Region	3.01	•
Target shooting with a traditional rifle	8.91	5
Target shooting with a modern sporting rifle	12.64	5
Target shooting with a handgun Target shooting with a handgun	8.55	3
Trap shooting Trap shooting	10.48	5
Skeet shooting	9.09	3
Sporting clays	9.30	3
3-gun shooting	2.68	2
Long-range shooting	12.42	2
Shooting at a range	8.97	4
South Region	6.27	1
Target shooting with a traditional rifle	11.89	5
Target shooting with a modern sporting rifle	9.85	4
Target shooting with a handgun	11.34	5
Target shooting with a handgun Trap shooting	7.89	4
Skeet shooting	7.25	4
Sporting clays	4.39	3
3-gun shooting	6.24	3
Long-range shooting	7.70	3
Shooting at a range	10.03	3
	10.05	3
Midwest Region	10.41	5
Target shooting with a traditional rifle	18.41 22.24	5 10
Target shooting with a modern sporting rifle Target shooting with a handgun	27.98	6
Trap shooting Trap shooting	11.59	5
Skeet shooting	6.76	4
Sporting clays	9.72	5
3-gun shooting	6.55	5
Long-range shooting	16.55	12
Shooting at a range	13.42	4
West Region	15,42	
Target shooting with a traditional rifle	7.99	5
Target shooting with a modern sporting rifle		5
Target shooting with a handgun Target shooting with a handgun	9.23	5
Trap shooting Trap shooting	9.07	5
Skeet shooting	7.13	4
Sporting clays	9.48	6
3-gun shooting	9.46 1 7.45	10
Long-range shooting	14.23	8
	6.74	3
Shooting at a range	0.74	J

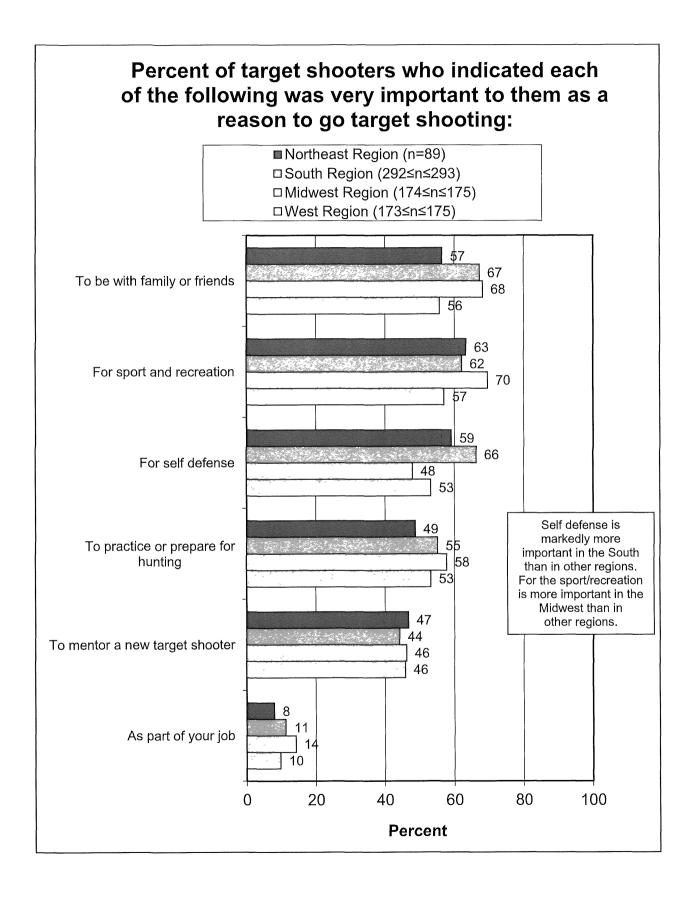
Mean days of participation in the various activities for all survey years (except as noted) are shown in the two graphs below. Mean days in 3-gun shooting and the various clay games all went down in 2020 compared to 2018. The activities are sorted left to right from the largest number of mean days in 2020 to the smallest number of mean days.

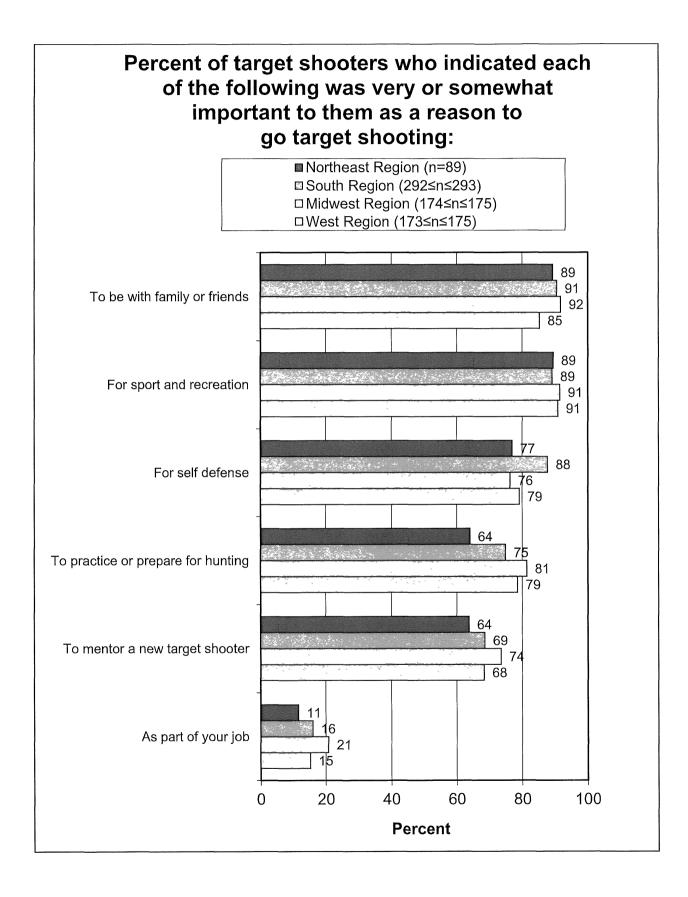


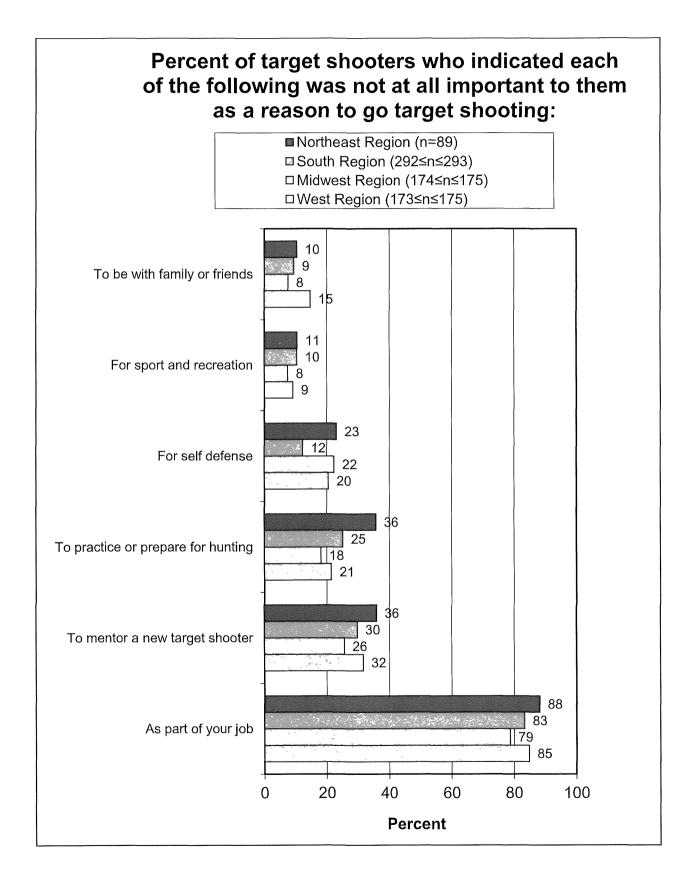
MOTIVATIONS FOR TARGET AND SPORT SHOOTING

The survey examined motivations for target/sport shooting, and social/recreational reasons top the list. However, they are closely followed in the ranking by utilitarian reasons: for self defense and to prepare for hunting. (The graph is ranked by the percentage saying *very* important.) Regional results follow the overall results below. (Although not shown here, a comparison of this graph with the same graph from the previous report found less importance to shooting to be with family or friends—perhaps a response to social distancing because of COVID-19.)





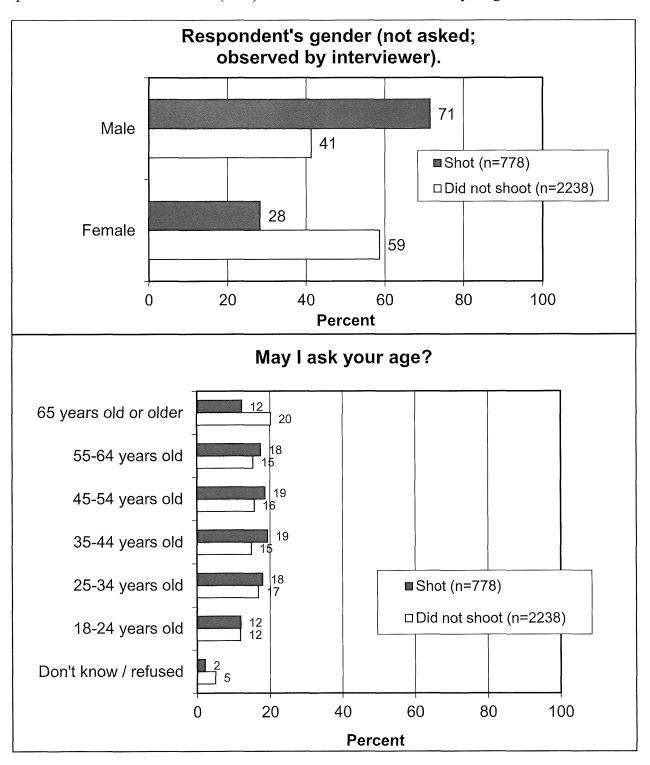




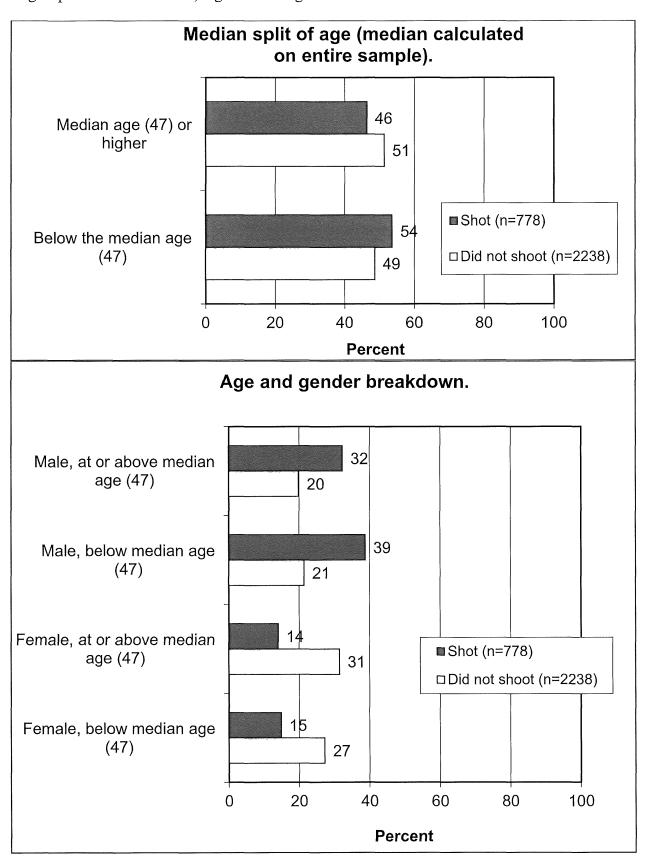
DEMOGRAPHIC CHARACTERISTICS OF SHOOTERS

A breakdown of target/sport shooters by demographic factors is presented in the graphs that follow.

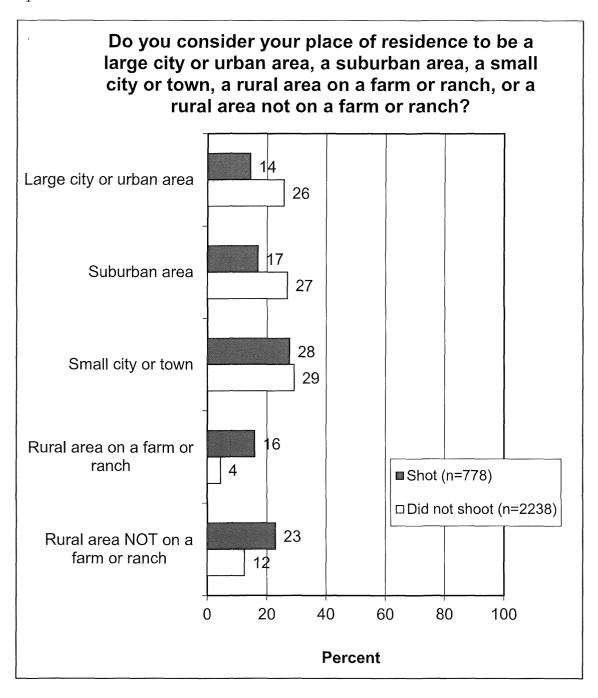
Shooters were much more likely to be male than were non-shooters: 71% of 2020 sport shooters were male, whereas only 41% of non-shooters were male. This means that slightly more than a quarter of shooters were female (28%). Shooters in 2020 tended to be younger than non-shooters.



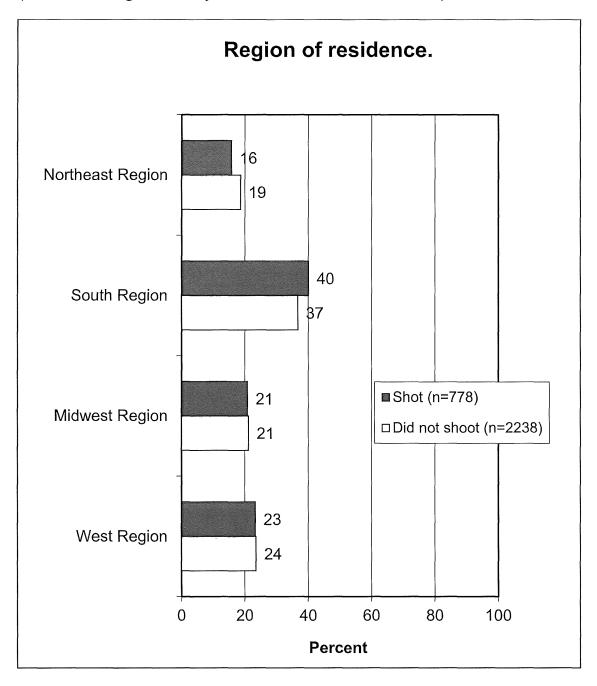
In the combination of age and gender, women were not well represented among active target/sport shooters in 2020, regardless of age.



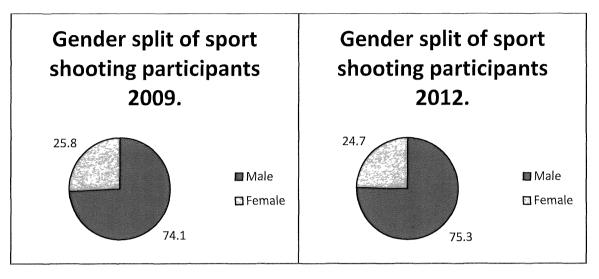
Sport shooters were much less urban and much more rural than were non-shooters.

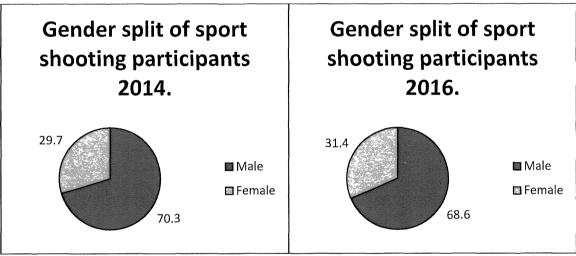


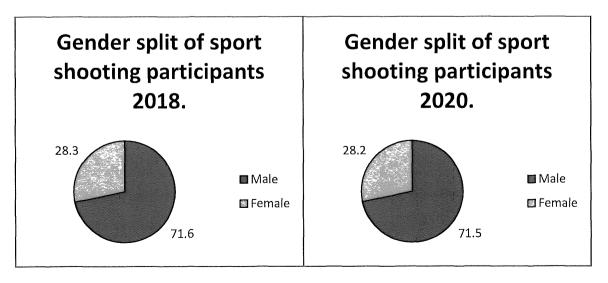
Finally, the Northeast Region was just slightly less associated with target/sport shooting participation: the Northeast made up only 16% of shooters, but it made up 19% of non-shooters. (These are the regions used by the U.S. Fish and Wildlife Service.)



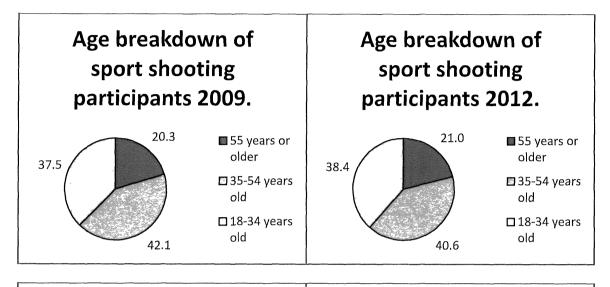
The following four pages present demographic trends data of shooters in each of the survey years from 2009 through 2020.

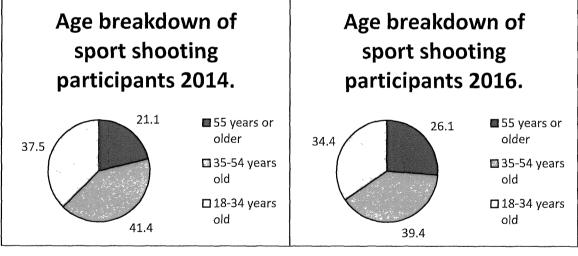


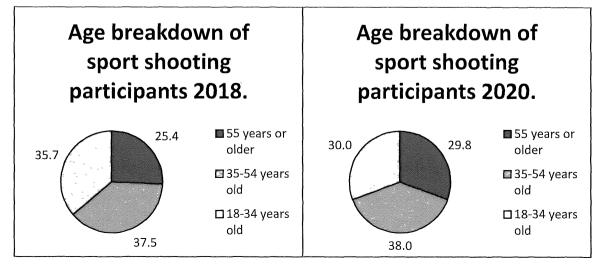




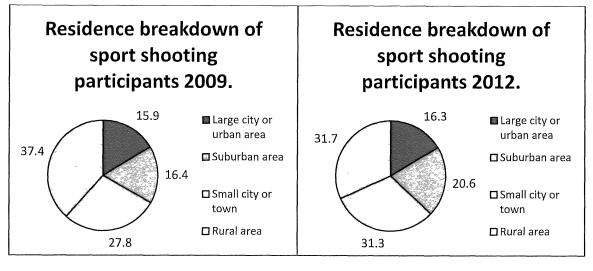
Younger sport shooters made up a smaller share of the pie in 2020, compared to any other year. Sport shooters who are 55 years old and older have the largest share that they have ever had since the surveys started in 2009.

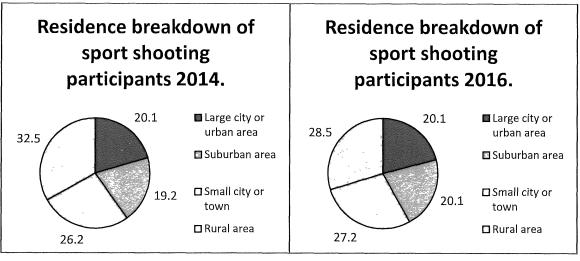


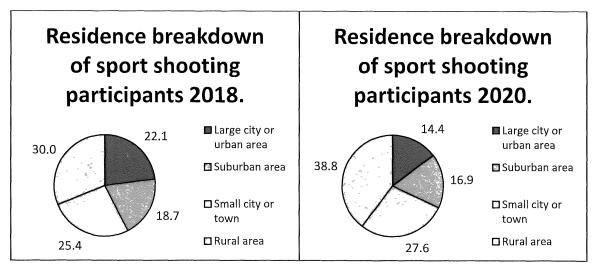




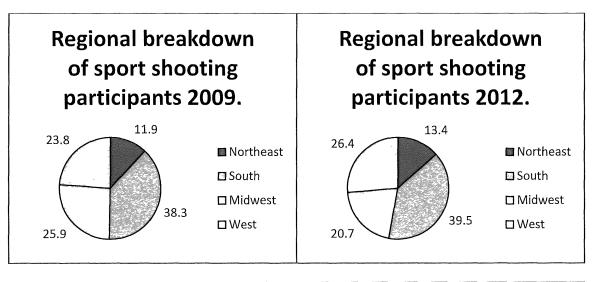
In 2020, well more than a third of sport shooters were from a rural area—the highest share since the surveys began in 2009. Those from a large city or urban area made up the smallest share since these surveys began.

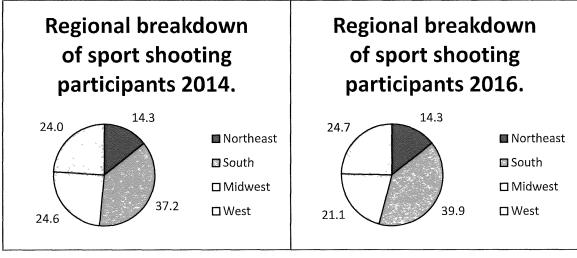


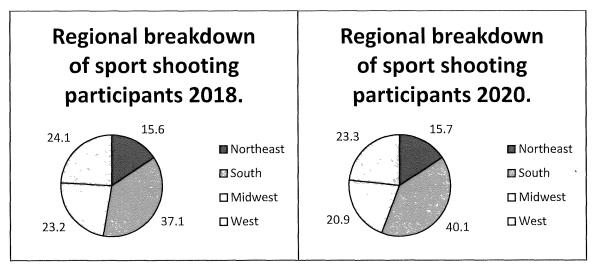




In the regional breakdown, the South continues to account for the largest portion of the pie, and its share in 2020 was the highest it has been, just barely higher than the proportion in 2016.



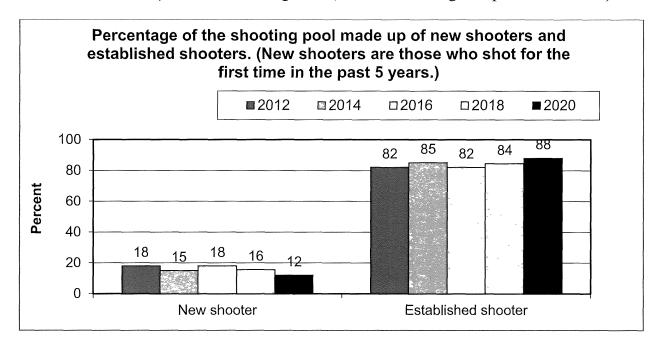




CHARACTERISTICS OF NEW SHOOTERS

New shooters were defined as those who started shooting within the past 5 years. For calendar year 2020, new shooters made up 12% of sport shooters, having been initiated into the shooting sports within the previous 5 years. This is the lowest percentage since 2012 when the surveys started tracking this. One reason for this is that the surge in shooting participation of a decade ago—when many new shooters were attracted to the sport—is moving through time, and those new shooters in 2012 are no longer new shooters. If they stuck with it, they are now established shooters. Note that the definition of new shooter uses a 5-year timeframe *from the date of each survey*.

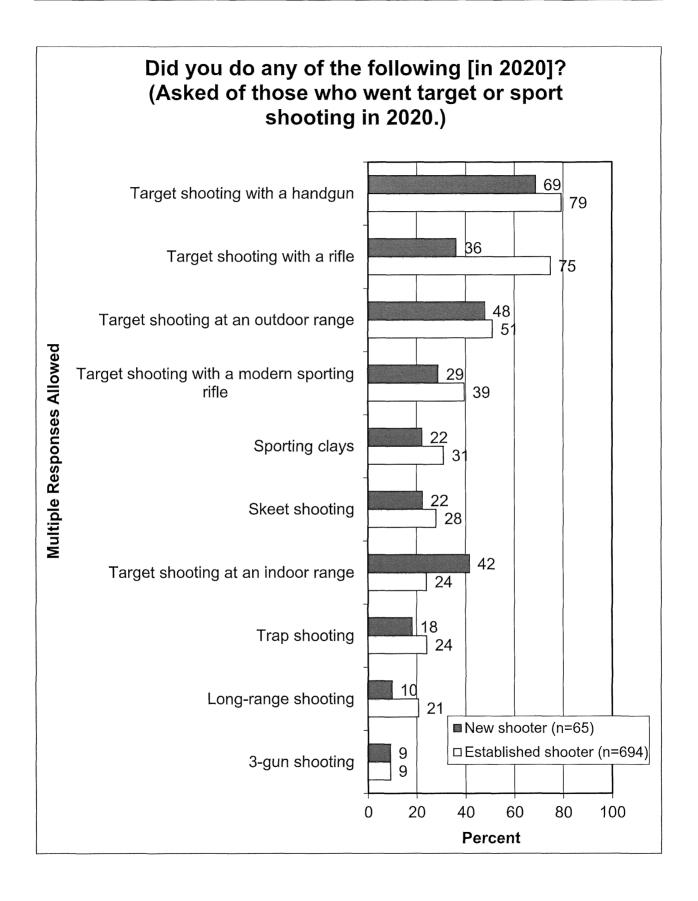
The analysis looked at the group of all target/sport shooters and then separated out new shooters and compared them to established shooters. In general, new shooters are less like the "traditional" shooter (the traditional being a rural, white male who grew up around firearms).

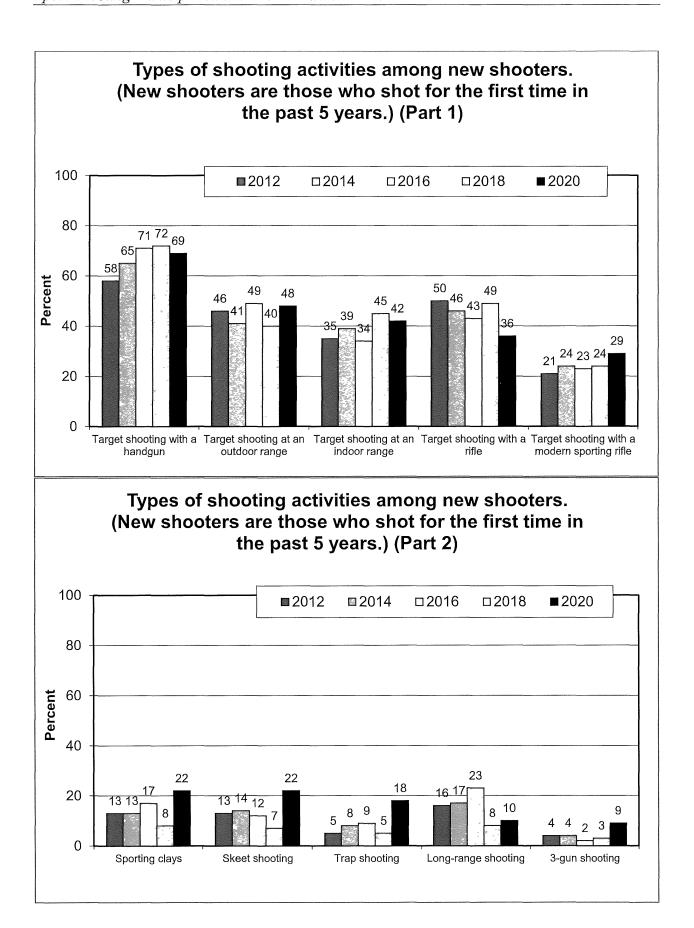


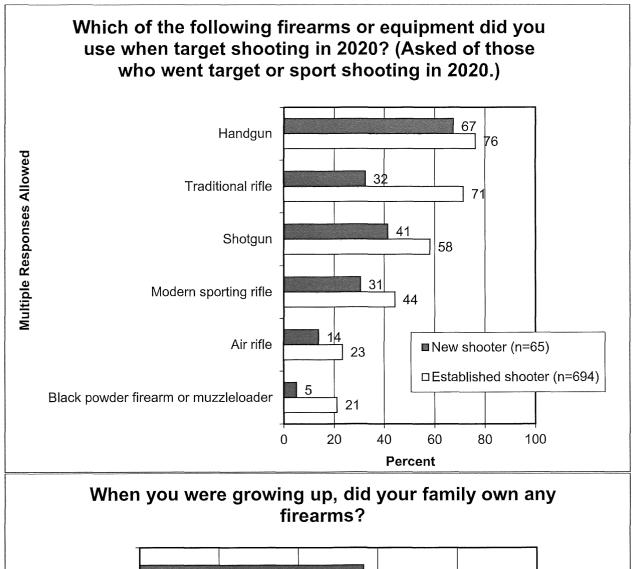
There are marked differences in the types of shooting done by new shooters versus established shooters. New shooters, compared to established shooters, are much *less* likely to go target shooting with a rifle—perhaps the most "traditional" shooting. They are also a little less likely to target shoot with a handgun and with a modern sporting rifle. New shooters are much more likely than established shooters to go to an indoor range.

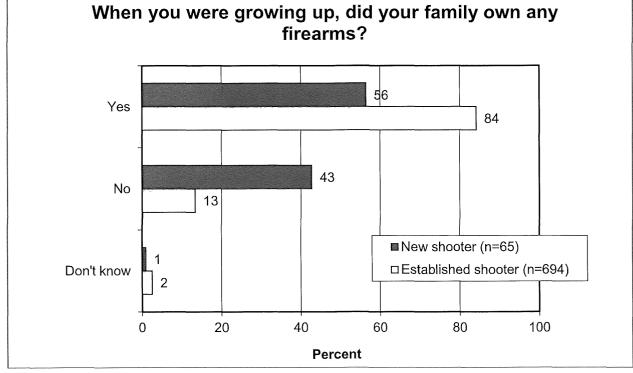
Regarding the types of firearms used by the two groups, established shooters have a markedly higher percentage using each type of equipment, although the two groups are closest together in handgun use. In particular, established shooters have a much higher rate of use of a traditional rifle, shotgun, and modern sporting rifle, compared to new shooters.

Established shooters are much more likely than new shooters to have grown up around firearms. While 84% of established shooters grew up in a firearm family, only 56% of new shooters did. This makes new shooters somewhat different than more "traditional" sport shooters who were introduced to shooting in a family setting.

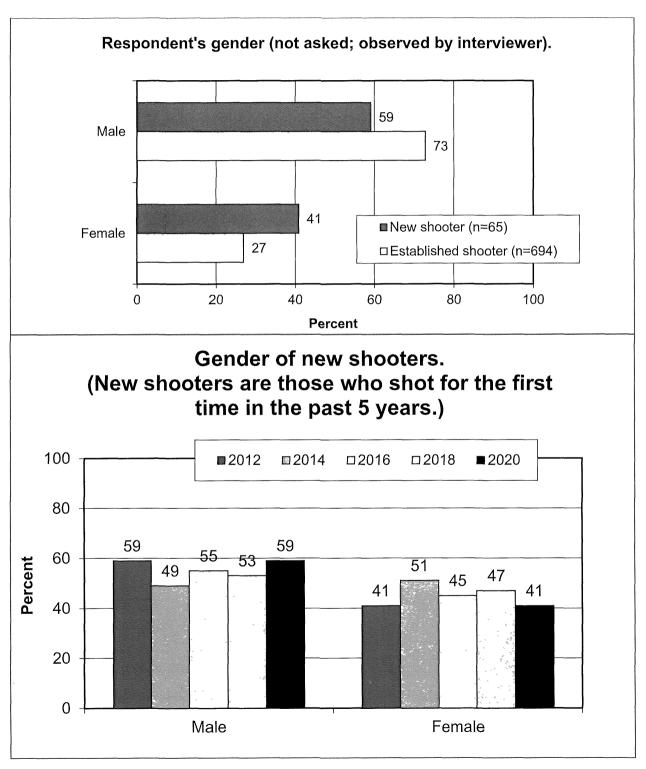




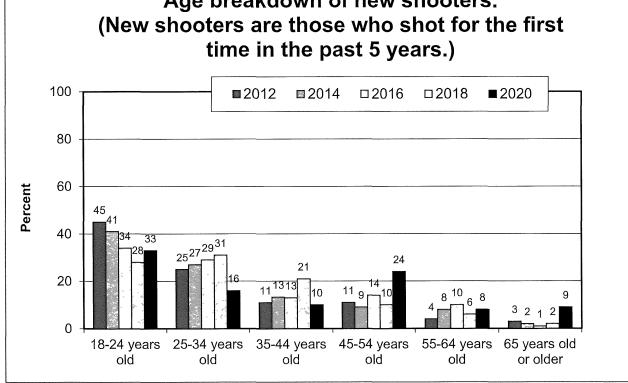


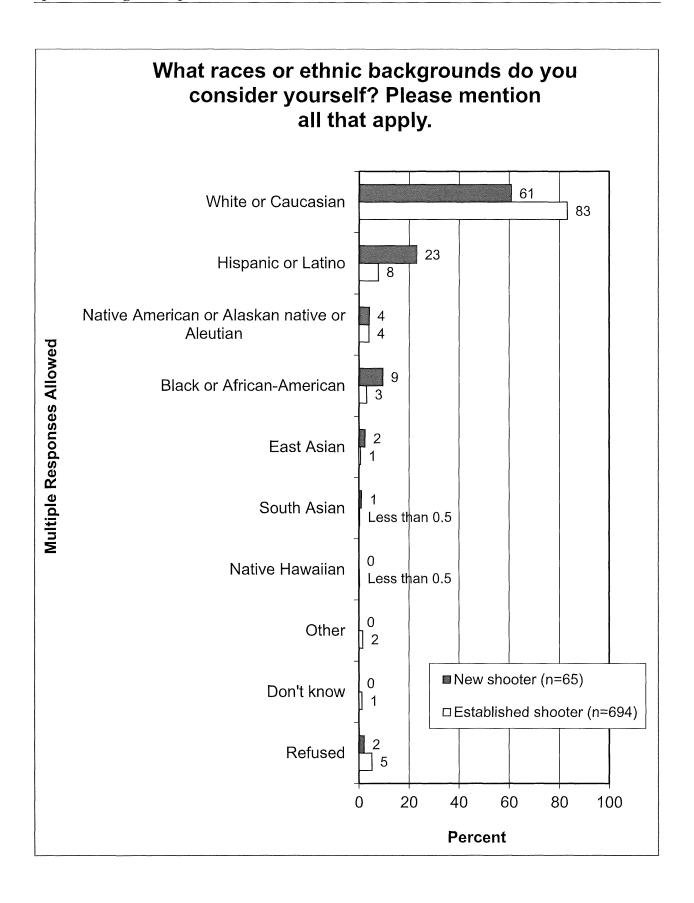


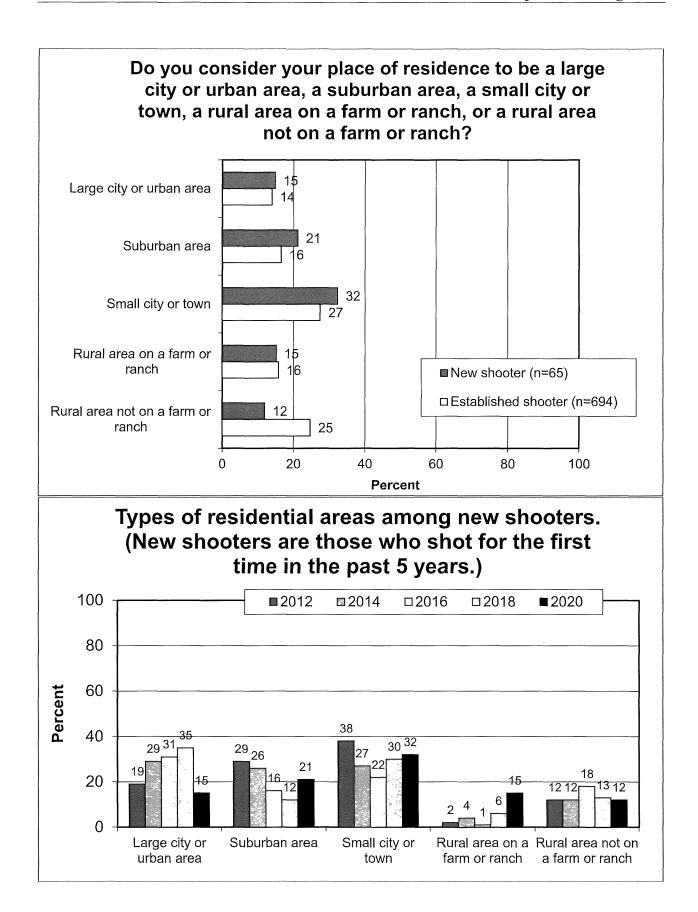
Several demographic characteristics also point toward nontraditional participation. New shooters are more likely to be female than are established shooters. New shooters are a little younger than established shooters, which is intuitive. New shooters are more likely to be non-white than are established shooters, and they are more likely to be urban/suburban than are established shooters.





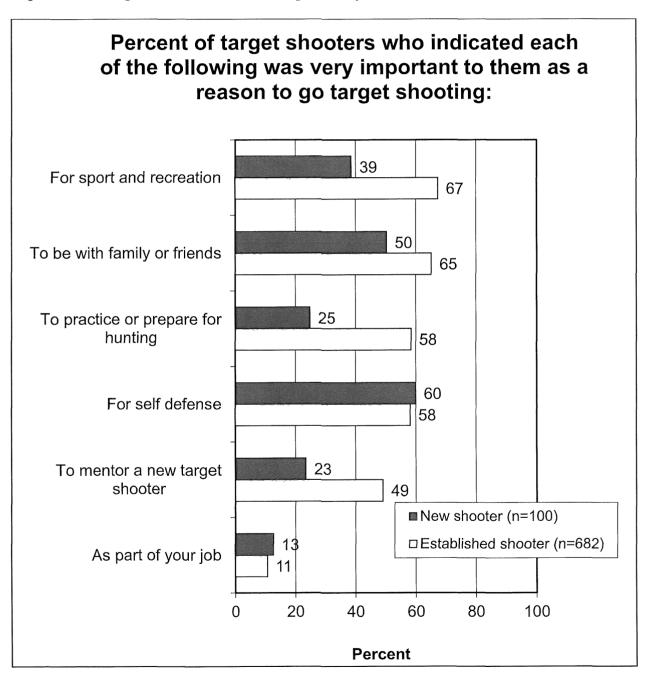


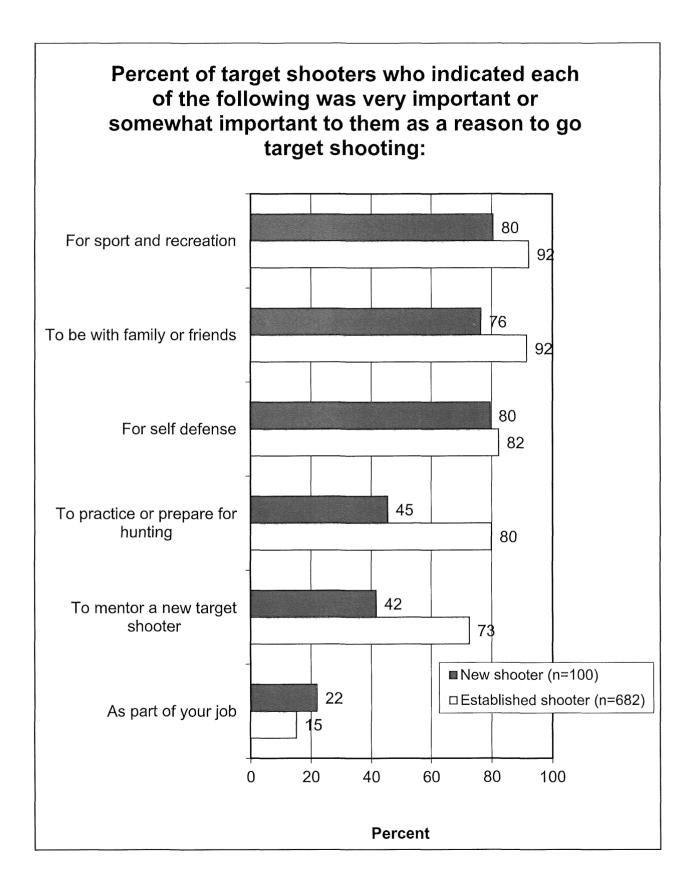


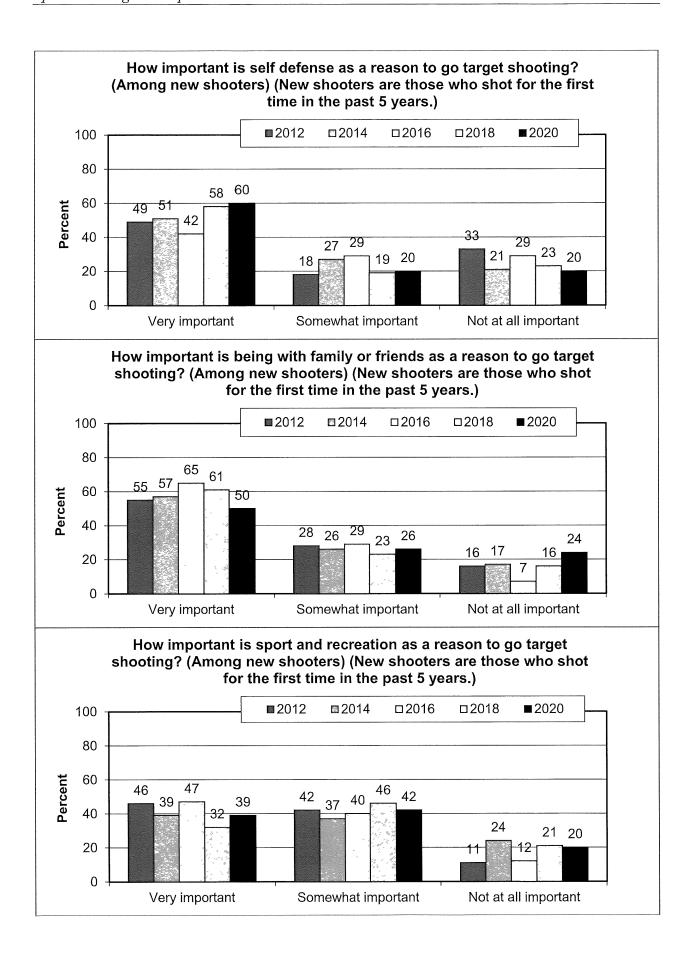


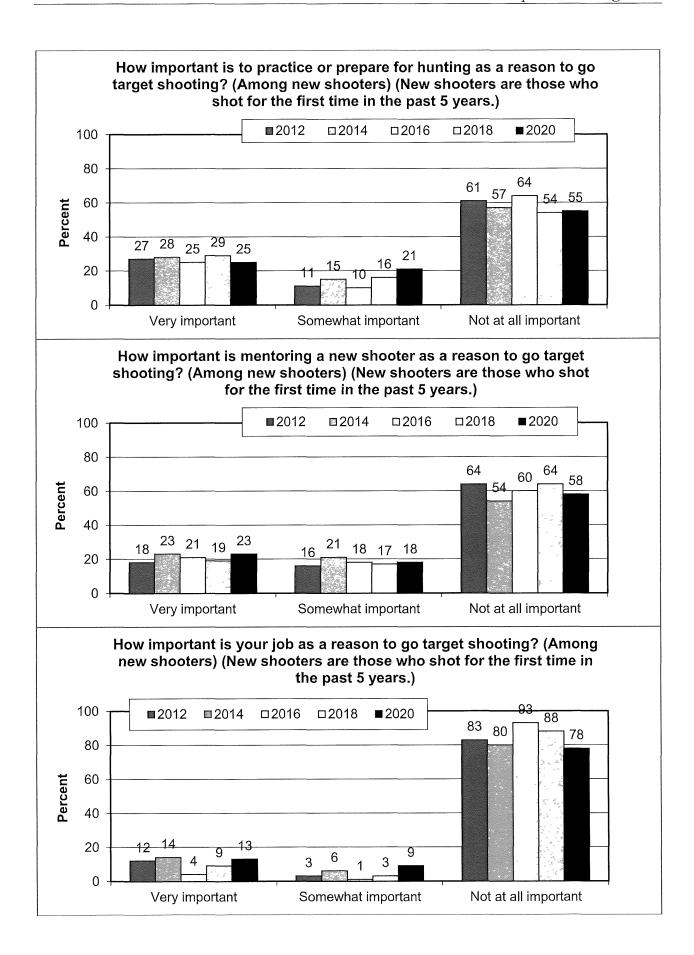
Motivations for sport shooting were also examined in this comparison of new and established sport shooters. For each reason with two exceptions, established shooters have a higher percentage saying that it is a very important reason for shooting, particularly shooting for sport and recreation, to prepare for hunting, and to mentor a new shooter. The exceptions are self defense and as part of a job, both of which are nearly equal between the two groups.

The trends suggest that shooting for self defense remains high among new shooters (it went up markedly in 2018). On the other hand, shooting to be with family and friends is down in importance among new shooters, relative to previous years.

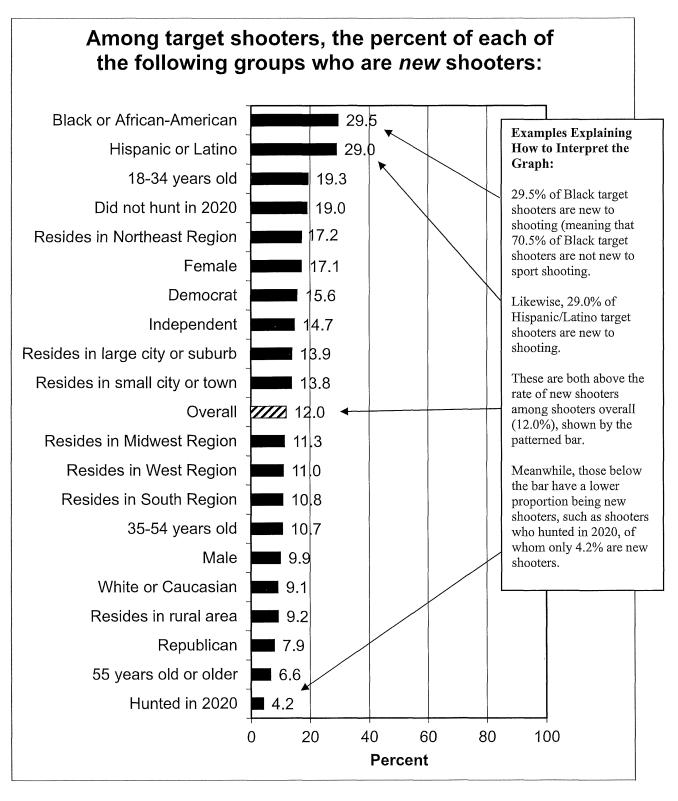








This section's next analysis examines multiple demographic characteristics on a single graph, which shows those characteristics that are associated with being a new shooter. Black/African-American and Hispanic/Latino shooters are correlated with being a new shooter. Other groups associated with being new to shooting are young shooters, non-hunting shooters, Northeast Region shooters, and female shooters.



A final analysis of new shooters looks at a subset of them: new shooters whose first year was 2020—the newest of the new shooters. The tables that follow show the results of this analysis. Because the sample size was so low, however, the tables show frequencies of respondents, and they show unweighted data. The main purpose of these tables is simply to give an idea of the newest of the new shooters, but caution should be taken when interpreting the results because of the low number of respondents who qualified as the newest of the new shooters.

Participation

Did you do any of the following in 2020? (Multiple responses allowed) (Among those who first went sport shooting in 2020.)		
	Number of respondents	
Target shooting with a handgun	12	
Target shooting with a rifle	3	
Target shooting at an outdoor range	7	
Target shooting with a modern sporting rifle	0	
Sporting clays	1	
Skeet shooting	1	
Trap shooting	0	
Target shooting at an indoor range	8	
Long-range shooting	0	
3-gun shooting	0	
None of these	3	

Which of the following firearms or equipment did you use when target shooting in 2020? (Multiple responses allowed) (Among those who first went sport shooting in 2020.)	
	Number of respondents
Traditional rifle	1
Handgun	12
Modern sporting rifle	2
Shotgun	3
Black powder firearm or muzzleloader	0
Air rifle	3
None of these	1
Don't know	1

Effect of COVID-19 on Participation

Did the COVID-19 pandemic have any effect on your decision to target shoot? (Asked of those who first went sport shooting in 2020.)	
	Number of respondents
Yes	4
No	15

Days of Participation in Target and Sport Shooting

How many days did you target shoot with a traditional rifle in 2020?

(Asked of those who went target shooting with a traditional rifle in 2020.)

(Among those who first went sport shooting in 2020.)

Number of respondents

1 day

3

Did not get question

16

How many days did you go target shooting with a handgun in 2020? (Asked of those who went target shooting with a handgun in 2020.) (Among those who first went sport shooting in 2020.) **Number of respondents** 21-30 days 1 11-20 days 0 6-10 days 1 5 days 0 4 days 0 3 days 3 2 days 2 1 day 5 Did not get question

How many days did you skeet shoot in 2020? (Asked of those who went skeet shooting in 2020.) (Among those who first went sport shooting in 2020.)	
	Number of respondents
1 day	1
Did not get question 18	

How many days did you shoot sporting clays in 2020? (Asked of those who shot sporting clays in 2020.) (Among those who first went sport shooting in 2020.)	
Number of respondents	
1 day	1
Did not get question	18

Approximately how many times did you go target shooting at a range in 2020? (Asked of those who shot at a range in 2020.) (Among those who first went sport shooting in 2020.)	
	Number of respondents
21-30 days	1
11-20 days	0
6-10 days	1
5 days	0
4 days	0
3 days	2
2 days	2
1 day 5	
Did not get question 8	

Motivations for Target and Sport Shooting

To be with family or friends. (Is this very important, somewhat important, or not at all important as a reason you go target shooting?) (Among those who first went sport shooting in 2020.)	
	Number of respondents
Very important	8
Somewhat important	4
Not at all important	7

For sport and recreation. (Is this very important, somewhat important, or not at all important as a reason you go target shooting?) (Among those who first went sport shooting in 2020.)	
	Number of respondents
Very important	4
Somewhat important	8
Not at all important	7

To practice or prepare for hunting. (Is this very important, somewhat important, or not at all important as a reason you go target shooting?) (Among those who first went sport shooting in 2020.)	
	Number of respondents
Very important	2
Somewhat important	1
Not at all important	16

For self defense. (Is this very important, somewhat important, or not at all important as a reason you go target shooting?) (Among those who first went sport shooting in 2020.)	
	Number of respondents
Very important	9
Somewhat important	3
Not at all important	6
Don't know	1

To mentor a new target shooter. (Is this very important, somewhat important, or not at all important as a reason you go target shooting?) (Among those who first went sport shooting in 2020.)	
	Number of respondents
Very important	0
Somewhat important	4
Not at all important	15

As part of your job. (Is this very important, somewhat important, or not at all important as a reason you go target shooting?) (Among those who first went sport shooting in 2020.)		
	Number of respondents	
Very important	2	
Somewhat important	0	
Not at all important	17	

Likelihood To Go Target or Sport Shooting in the Future

What is the likelihood that you will participate in any type of sport shooting in the next 2 years? (Among those who first went sport shooting in 2020.)	
	Number of respondents
Very likely	5
Somewhat likely	4
Not at all likely	9
Don't know	1

Which of those activities do you plan to do in the coming year? (Asked of those very or somewhat likely to go sport shooting in the next 2 years.) (Multiple responses allowed) (Among those who first went sport shooting in 2020.)		
	Number of respondents	
Target shooting with a handgun	7	
Target shooting with a rifle	2	
Target shooting at an outdoor range	5	
Target shooting with a modern sporting rifle	1	
Sporting clays	3	
Skeet shooting	1	
Trap shooting	1	
Target shooting at an indoor range	4	
Long-range shooting	1	
3-gun shooting	1	
None of these	2	

Initiation Into Sport Shooting

Did you have a person or group who taught you how to shoot? (Among those who first went sport shooting in 2020.)		
	Number of respondents	
Yes	15	
No	4	

When you were growing up, did your family own any firearms? (Among those who first went sport shooting in 2020.)		
	Number of respondents	
Yes	12	
No	7	

Do you own one firearm, more than one firearm, or do you not own any firearms? (Among those who first went sport shooting in 2020.)		
	Number of respondents	
One firearm	5	
More than one firearm	8	
Do not own any firearms	4	
Don't know / refused	2	

Demographic Information

May I ask your age? (Among those who first went sport shooting in 2020.)	
	Number of respondents
65 years old or older	5
55-64 years old	5
45-54 years old	4
35-44 years old	2
25-34 years old	2
18-24 years old	0
Don't know / refused	1
Mean = 55.61; median = 59	

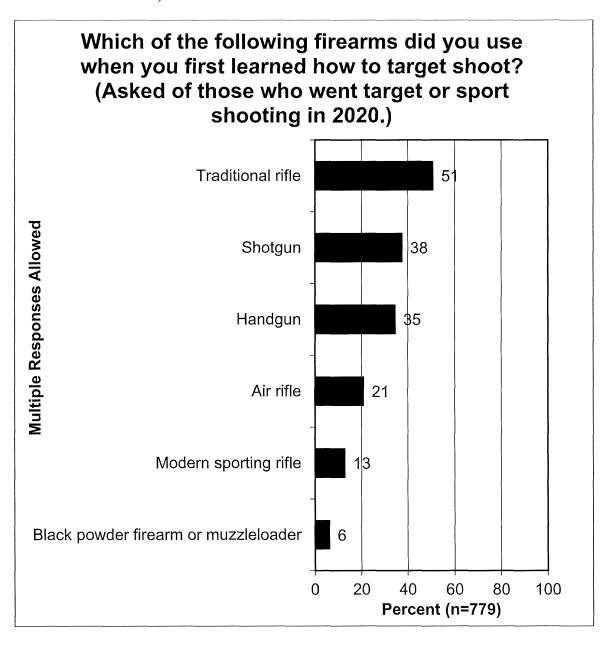
Demographic characteristics of those who first went sport shooting in 2020.		
	Number of respondents	
Gender		
Male	8	
Female	11	
Region of Residence		
Northeast	7	
South	6	
Midwest	6	
West	0	
Race or Ethnicity		
White or Caucasian	16	
Black or African-American	0	
Hispanic or Latino	1	
Refused	2	
Type of Residential Area		
Large city or suburb	9	
Small city or town	5	
Rural area	4	
Refused	1	
Participation in Hunting		
Hunted in 2020	0	
Did not hunt in 2020	19	
Political Affiliation		
Democrat	2	
Republican	4	
Independent	6	
Refused	7	
Age		
55 years old or older	10	
35 to 54 years old	6	
18 to 34 years old	2	
Refused	11	

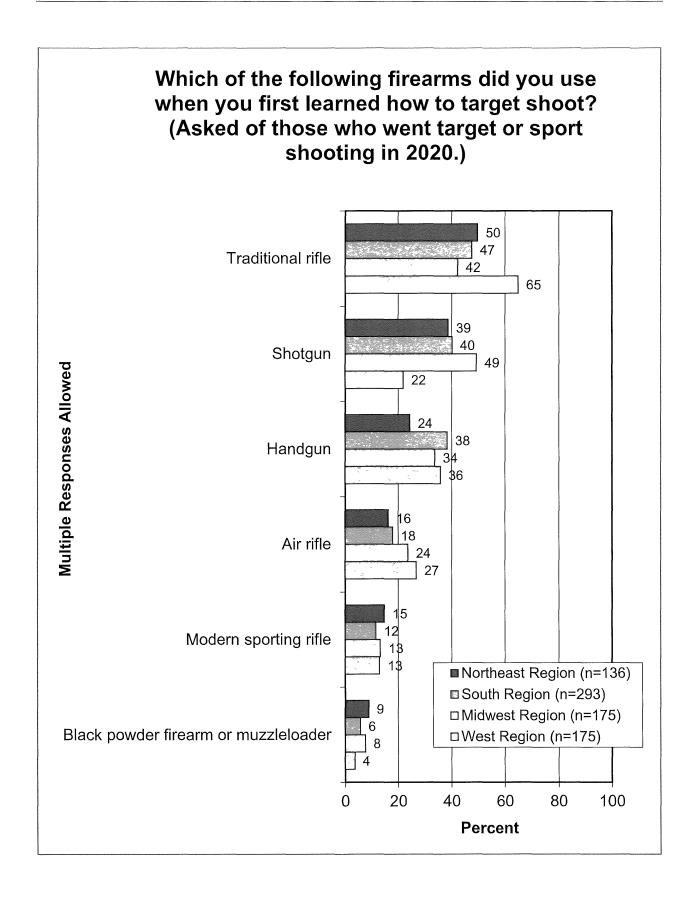
TRADITIONAL AND NONTRADITIONAL PATHWAYS TO SPORT SHOOTING

In this section, the nontraditional path is examined in several ways. The first is a look at initiation into the sport and then how growing up with a firearm affects shooting participation. Nontraditional shooters are examined in the final part of this section through several variables to define them.

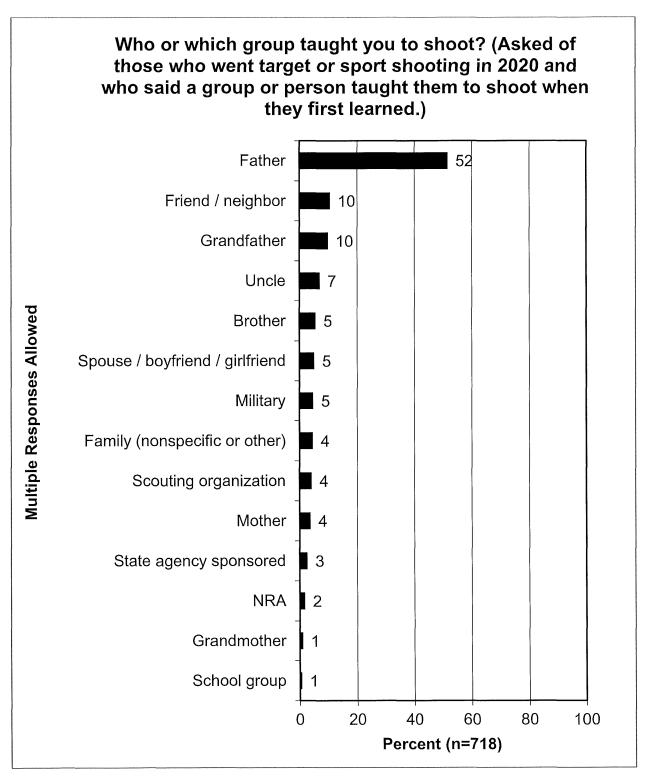
Initiation Into Target/Sport Shooting

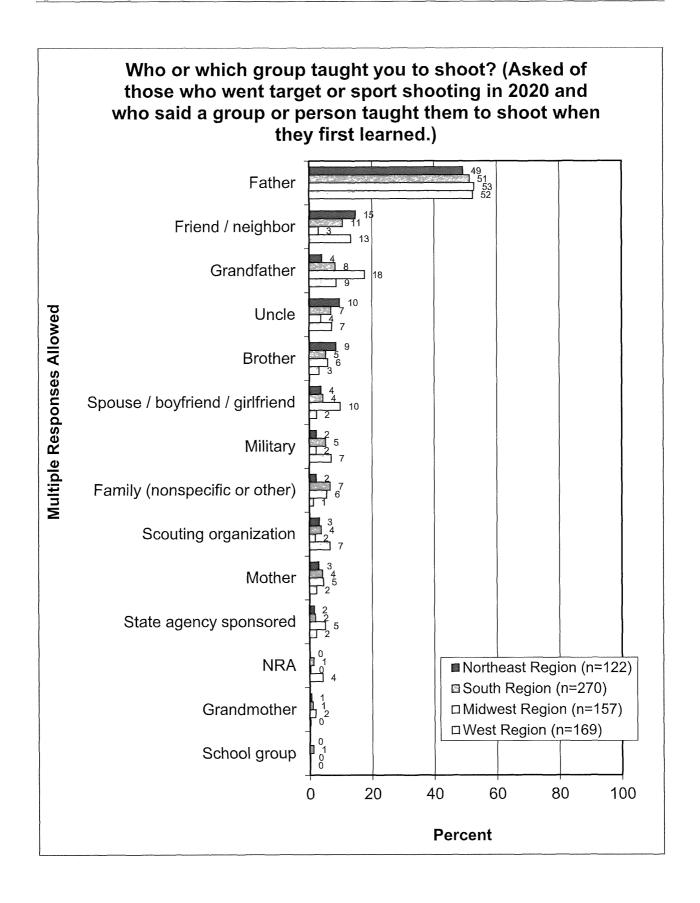
Traditional rifles were the most popular firearm when sport shooters were initiated into the activity (more than half used them when learning). Next are shotguns and handguns (each at a little more than a third).

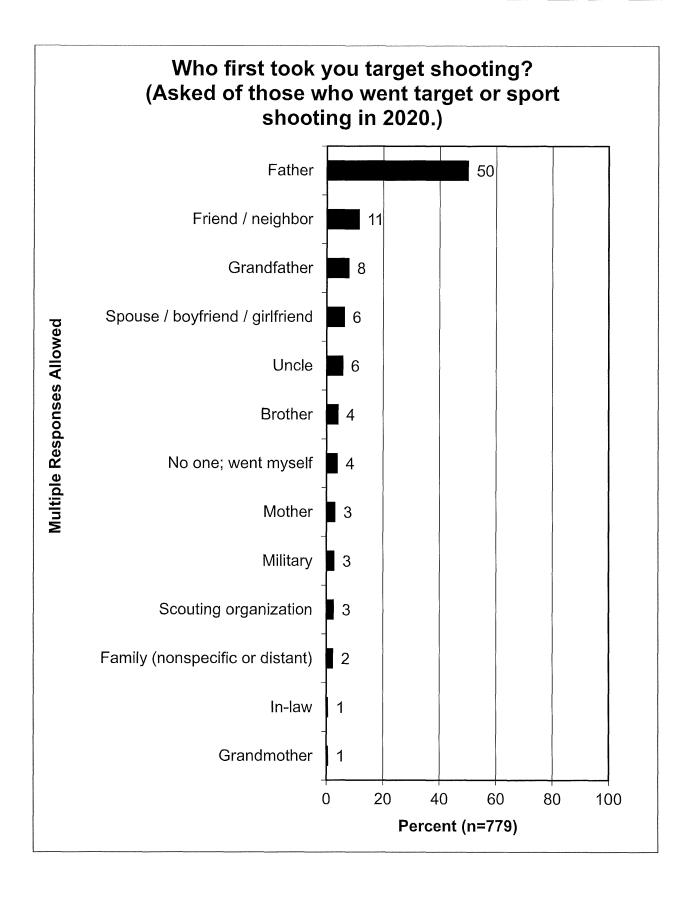


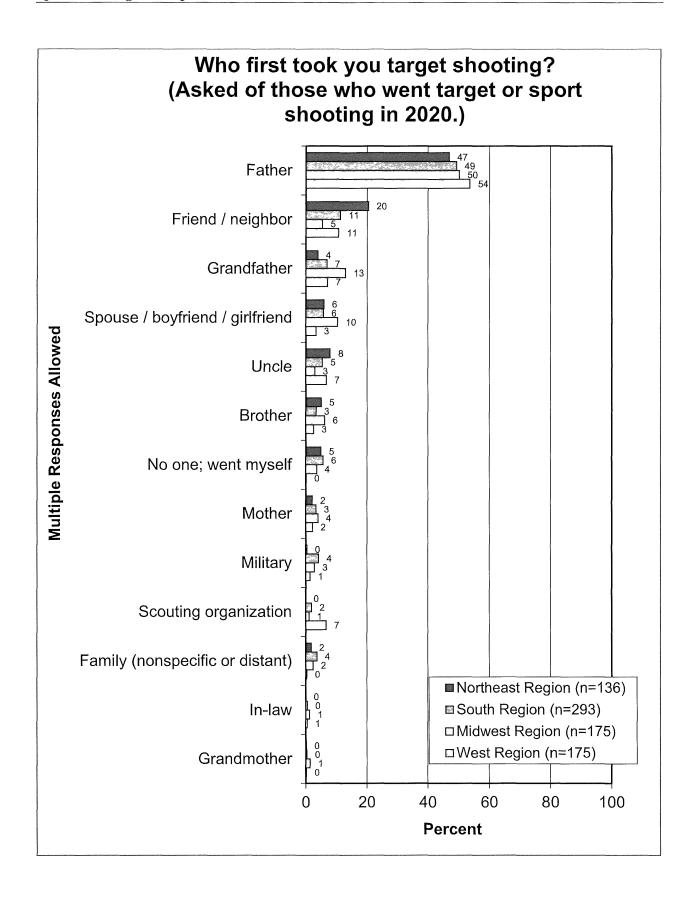


Target/sport shooters most commonly were taught to shoot by their father (52%), far exceeding any other person or entity. The full results are shown in the graph. Another graph shows the person who first took respondents shooting, again with father being the top response (this includes those who were self-taught and were not asked the first question).



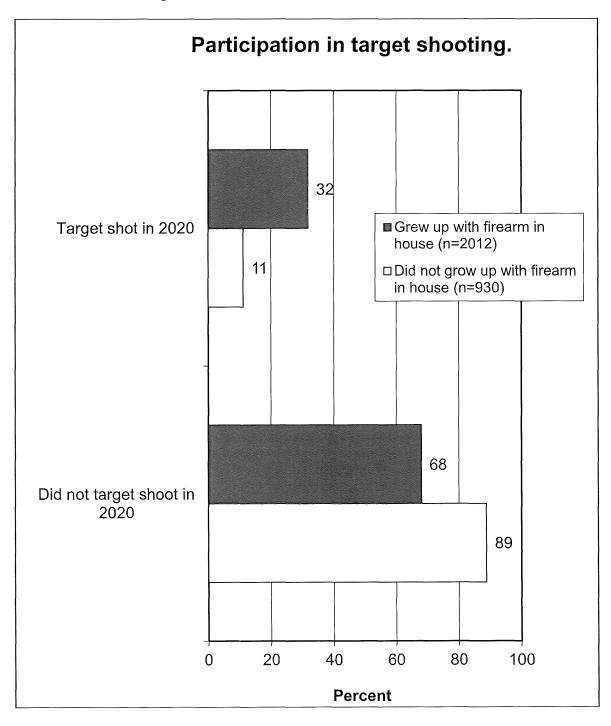


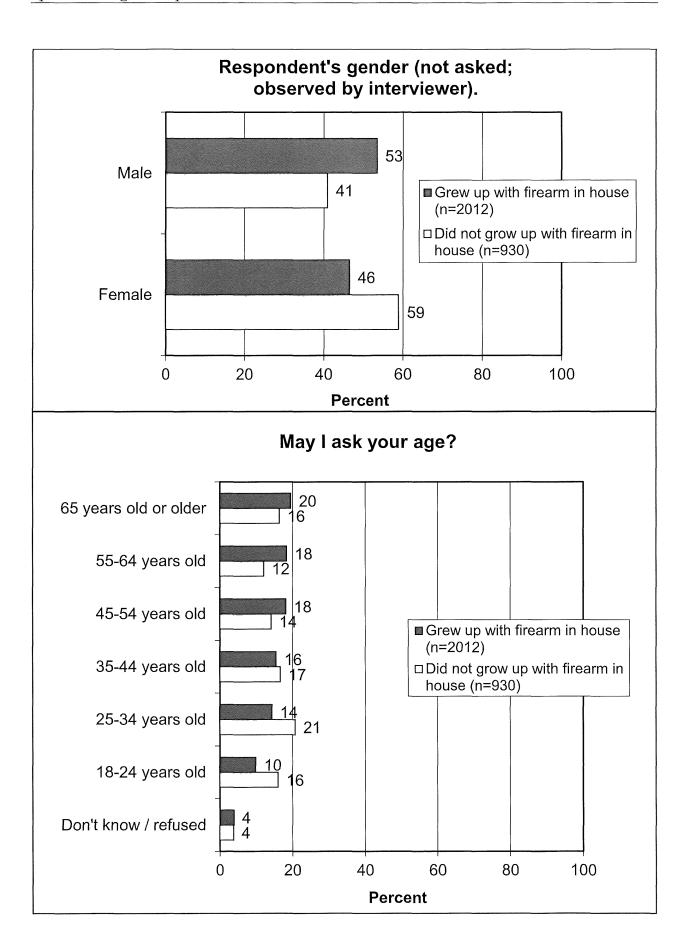


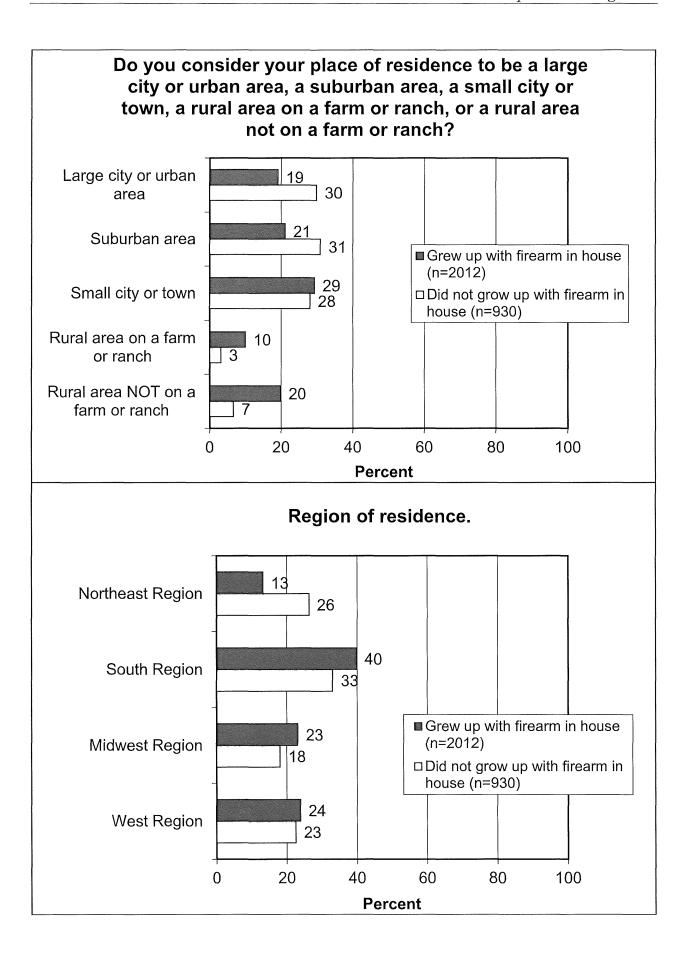


Growing Up With Firearms and Its Effect on Shooting Participation

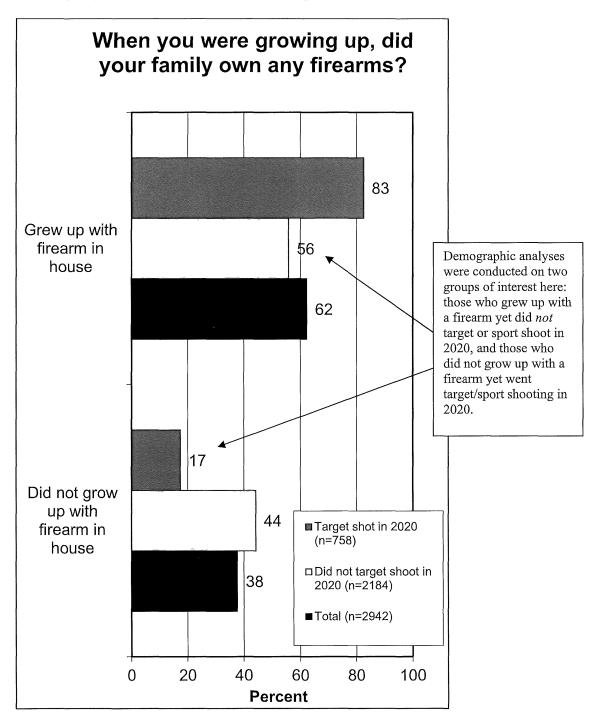
The analyses in this report include crosstabulations according to whether the respondent grew up with a firearm or not. Those growing up with a firearm (or at least being aware that they did), compared to their counterparts not growing up with a firearm, are three times more likely to have participated in sport shooting in 2020. Additionally, they are more likely to be male, older, rural, and from the South Region.





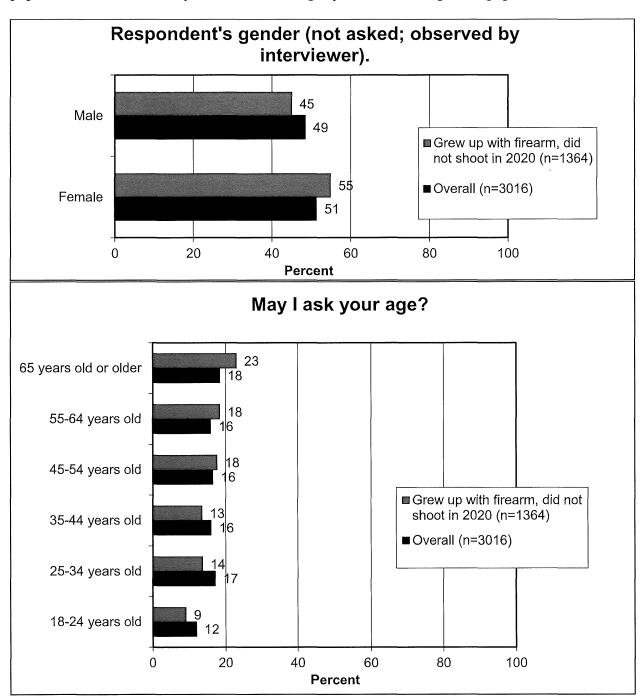


The study looked at how growing up with a firearm in the house affects target/sport shooting participation, showing that those who went shooting in 2020 are much more likely to have grown up with a firearm, compared to those who did not go shooting: 83% of 2020 shooters compared to 56% of non-shooters grew up with a firearm. This question allows the identification of defined market groups, as discussed in the following pages.

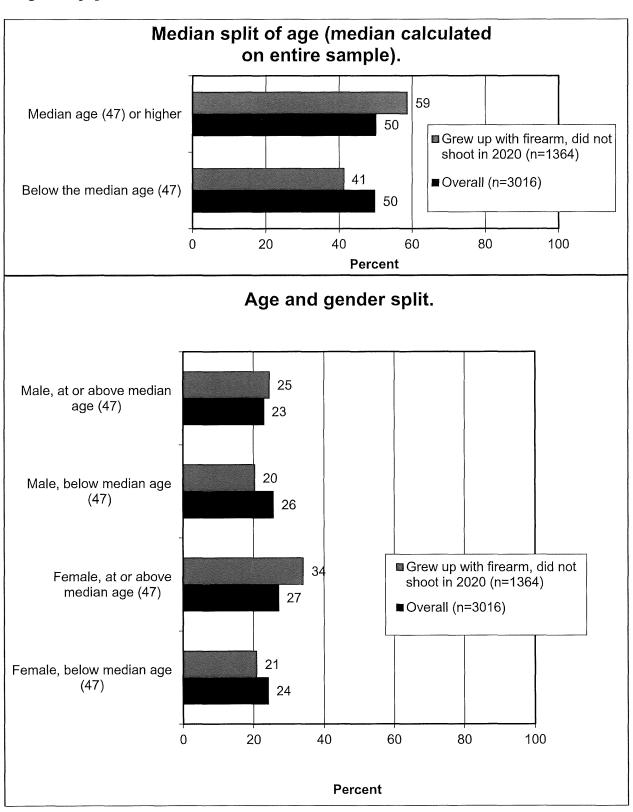


The two groups of interest in the previous graph are further examined. The first group is composed of people who intuitively would seem predisposed to be interested in target/sport shooting—those who grew up with a firearm—but who nevertheless did not go target/sport shooting in 2020. They are compared to all respondents.

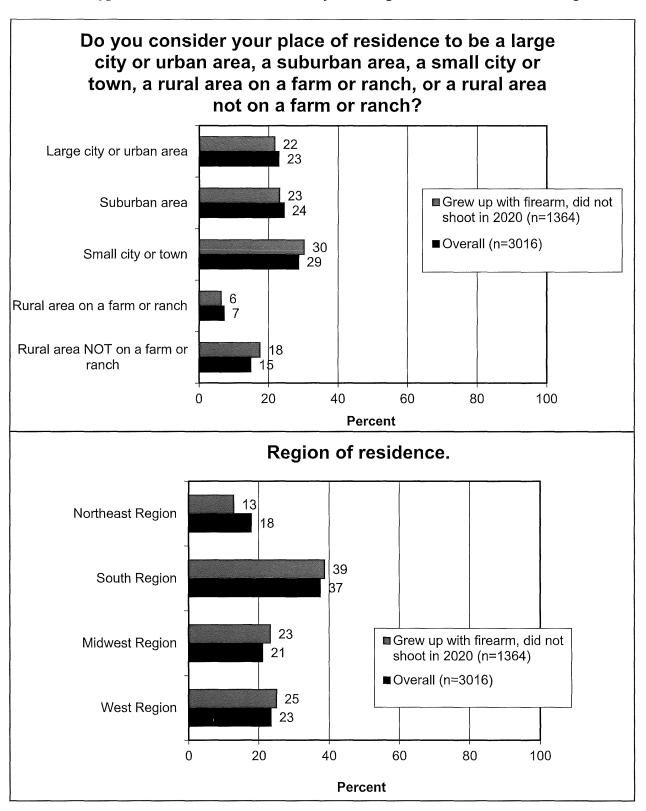
Non-shooters who grew up with a firearm are slightly more female than the United States population as a whole. They also tend to be slightly older than the general population as a whole.



Another graph shows the interaction of age and gender—note that older women make up a greater proportion of those who grew up with a firearm but did not shoot in 2020 than they do of the general population.

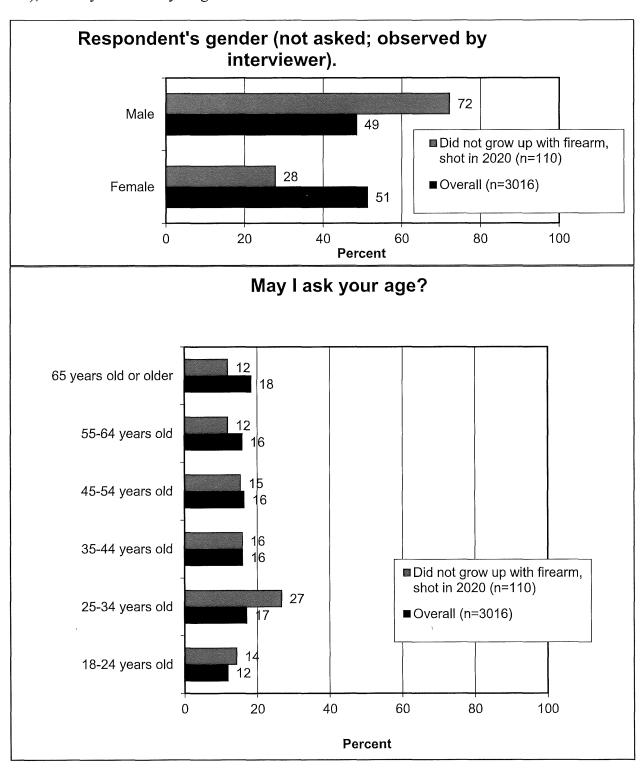


Non-shooters in 2020 who grew up with a firearm are about the same as the population as a whole in the type of residential area in which they live. Regional differences are also slight.

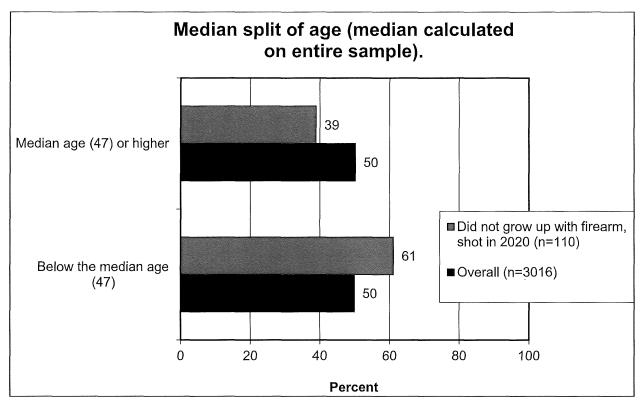


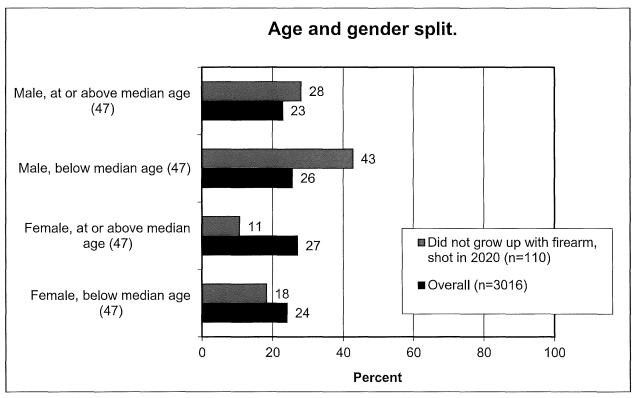
Analyses were conducted on the second group of interest, which consisted of 2020 shooters who did *not* grow up with a firearm. These would be people who appear to have entered the sport of shooting in a nontraditional path (the "traditional" path is being initiated into shooting as a child by a family member). The following are the demographic characteristics of this group.

Shooters in 2020 who did not grow up with a firearm are predominantly males (72% of them are), and they tend to be younger than Americans as a whole.

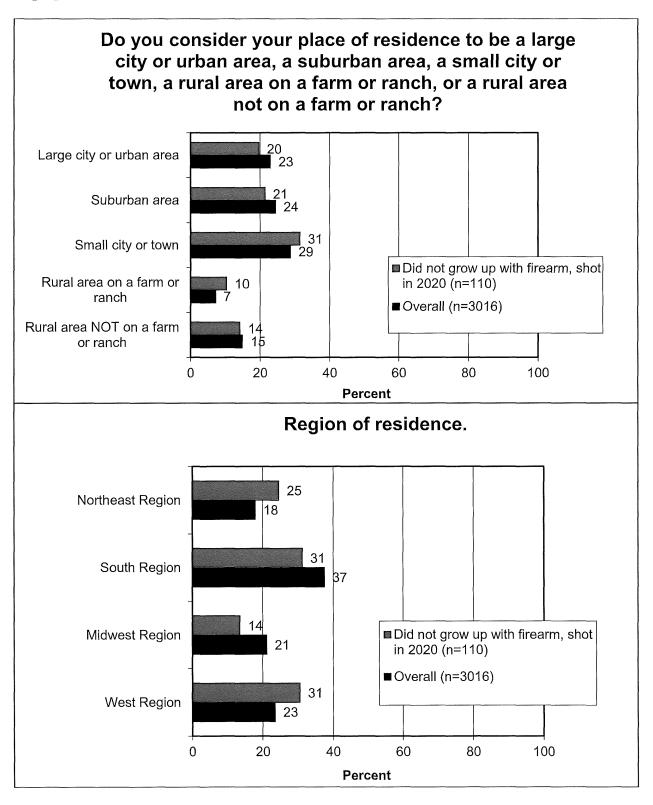


The graphs below show that 2020 shooters who grew up without a firearm in the household are disproportionally young males.





These 2020 shooters from a non-firearm background tend to be slightly less urban/suburban than the population as a whole, although the differences are slight. Finally, the final crosstabulation in this section shows the regions; these shooters who did not grow up with a firearm are disproportionally from the Northeast and West Regions.



Nontraditional Shooters

There are seven characteristics that were used to identify nontraditional shooters, as presented in the table below. Each variable was made to be dichotomous, meaning each had two sides: a variable had either a traditional or nontraditional side. Most of these characteristics were based on a single survey question, but two characteristics were based on the results of multiple questions. The characteristics and the question responses on which they are based are shown in the tabulation that follows.

Nontraditional Characteristic	Question Used as Basis
	When you were growing up, did your family own any
Not growing up in a household with a	firearms?
firearm that was actively used at least	(IF YES) When you were growing up, about how many
two times per year	times per year did someone in your family use the firearm
	for target shooting?
Did not shoot until an adult	How old were you when you first went target shooting?
First experienced shooting with a	Which of the following firearms did you use when you
handgun or a modern sporting rifle	first learned how to target shoot?
Not mentored by a father or other close male relative	Did you have a person or group who taught you how to
	shoot?
	(IF YES) Who or which group taught you?
Ethnically non-white	What races or ethnic backgrounds do you consider
	yourself? Please mention all that apply.
Female	Respondent's gender.
Urban/suburban	Do you consider your place of residence to be a large city
	or urban area, a suburban area, a small city or town, a rural
	area on a farm or ranch, or a rural area not on a farm or
	ranch?

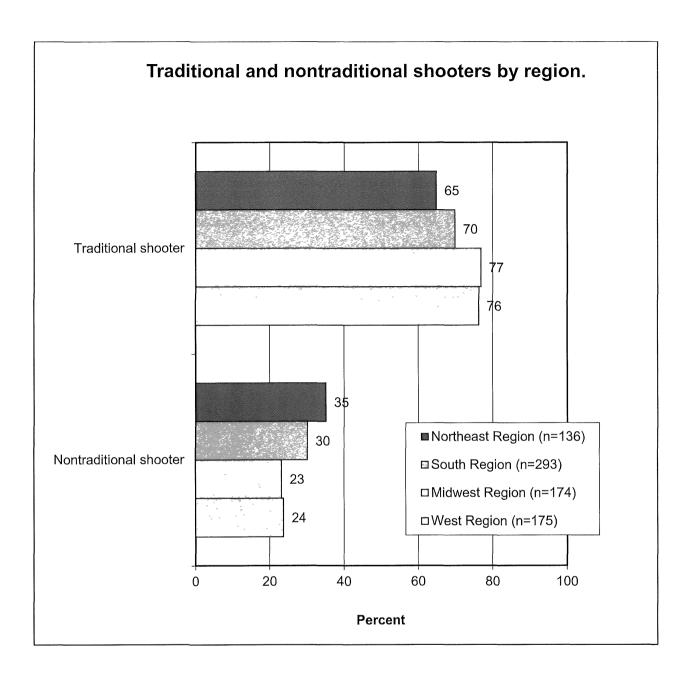
For the purposes of this analysis, a respondent was nontraditional if four of the seven characteristics were nontraditional—in other words, if more than half of the characteristics were in the nontraditional side of the dichotomy. In the sample of shooters, 28% had at least four of the seven variables in the nontraditional side; 72% of shooters were considered traditional. These two groups (traditional and nontraditional shooters) were then crosstabulated by region, by their reasons for shooting, by what shooting activities they did, by the types of firearms they shot, and by the number of days that they did various shooting activities.

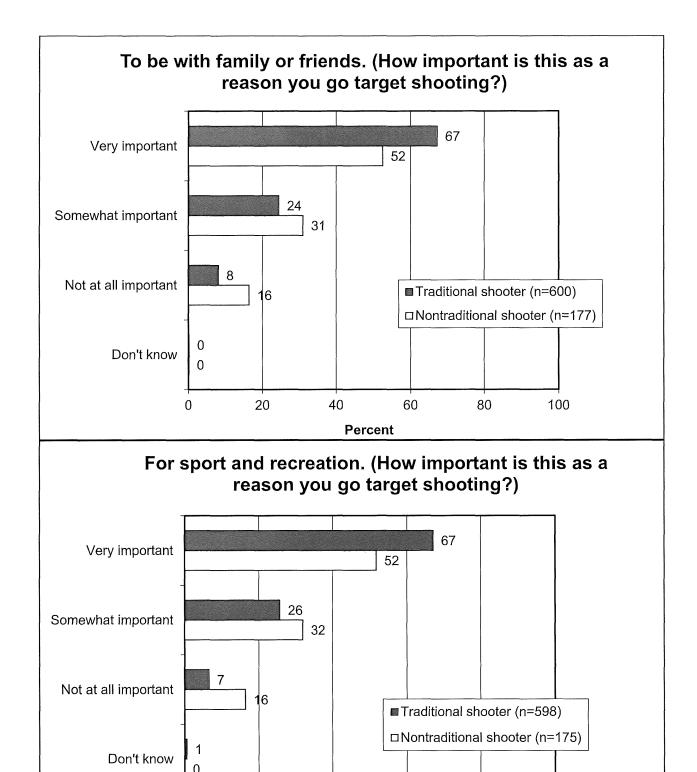
The findings suggest that the Northeast and South Regions have the highest percentages of shooters who are nontraditional shooters.

Nontraditional shooters are less concerned about being with family and friends when they shoot, compared to traditional shooters. They also put less importance on shooting for sport and recreation, to prepare for hunting, and to mentor a new shooter. They are about the same in the importance of training for self defense.

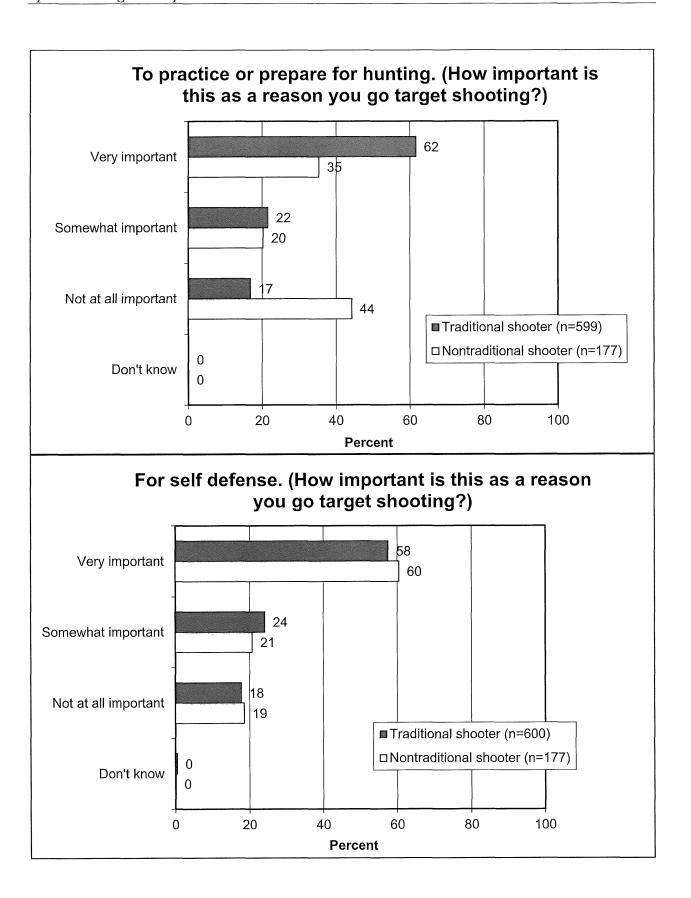
Nontraditional shooters are target shooting with handguns at a slightly higher rate than traditional shooters. Also, they are shooting in indoor ranges at a much higher rate than traditional shooters.

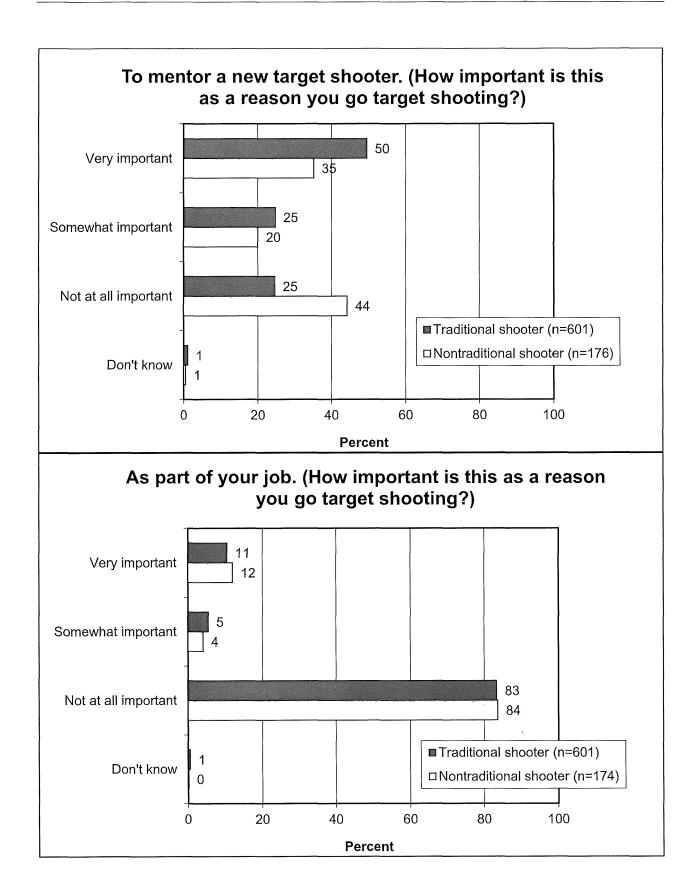
Nontraditional shooters tend to shoot fewer days than traditional shooters. They have a lower mean number of days for each type of shooting.

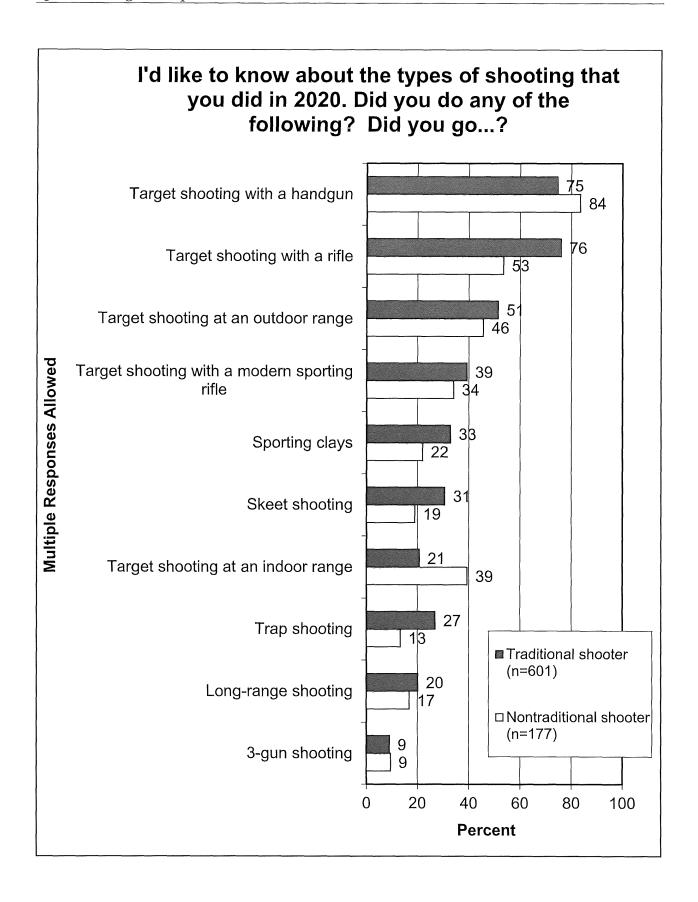


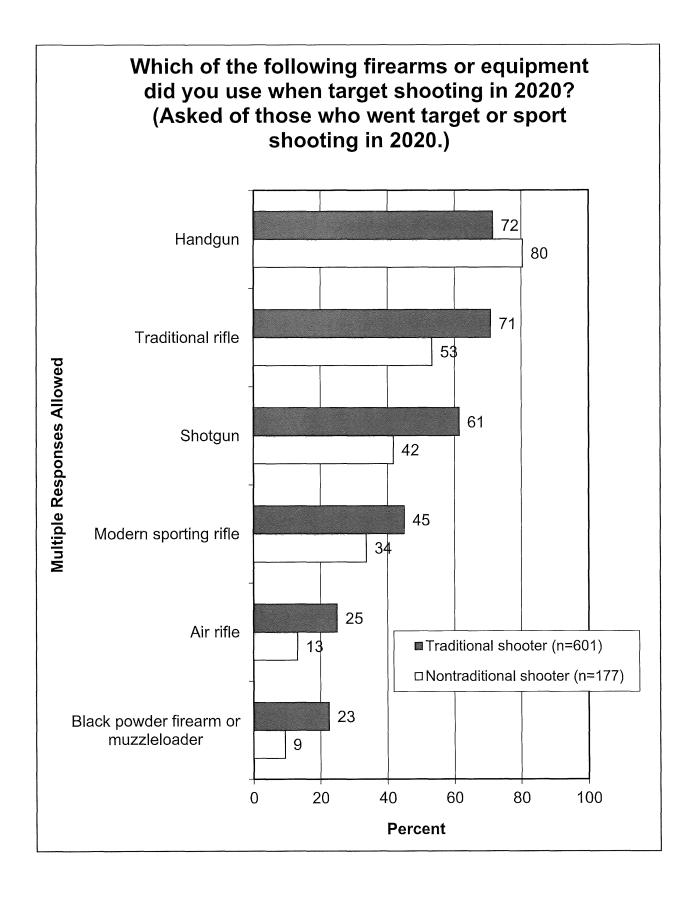


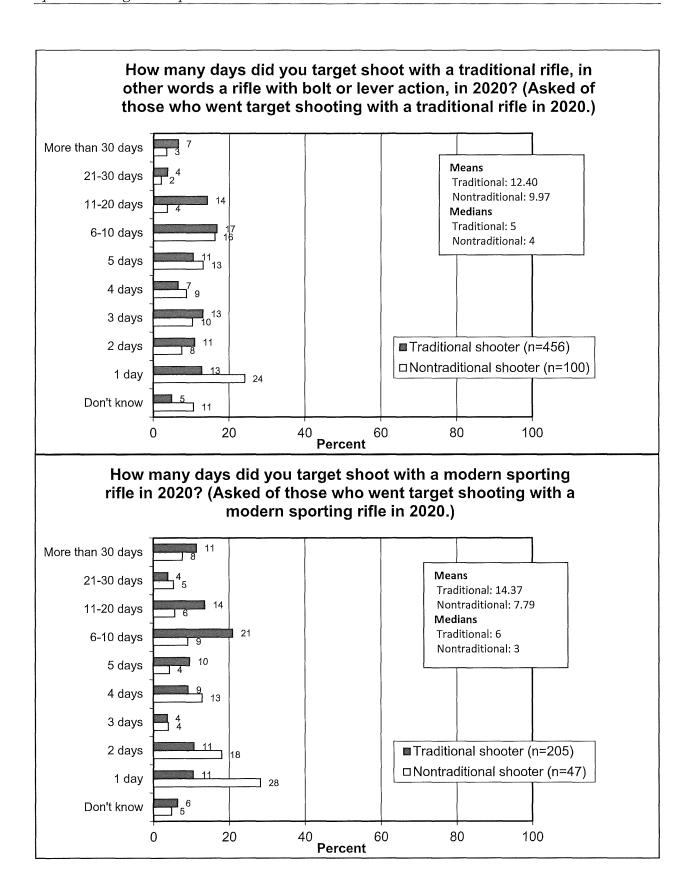
Percent











2 days

1 day

0

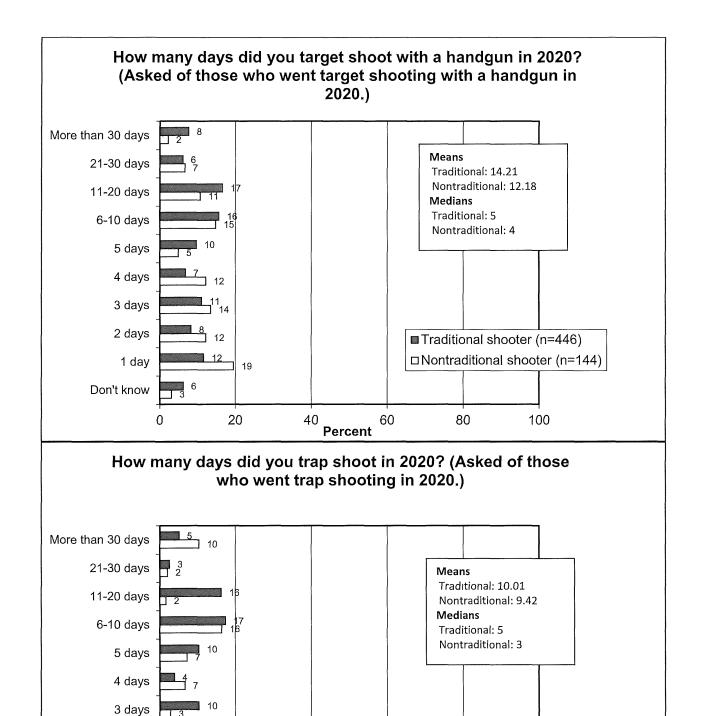
20

40

Percent

60

Don't know

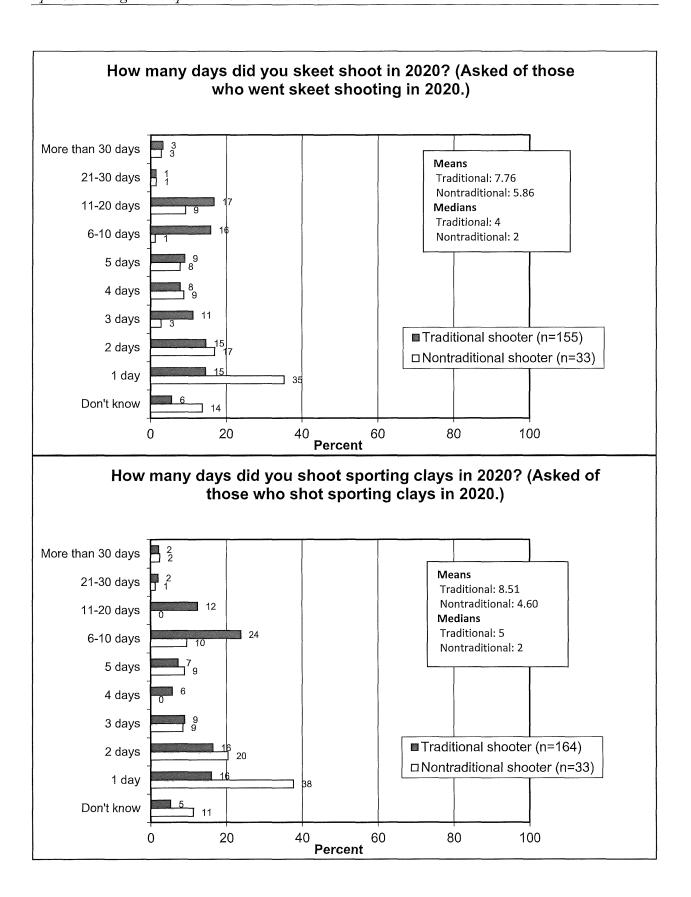


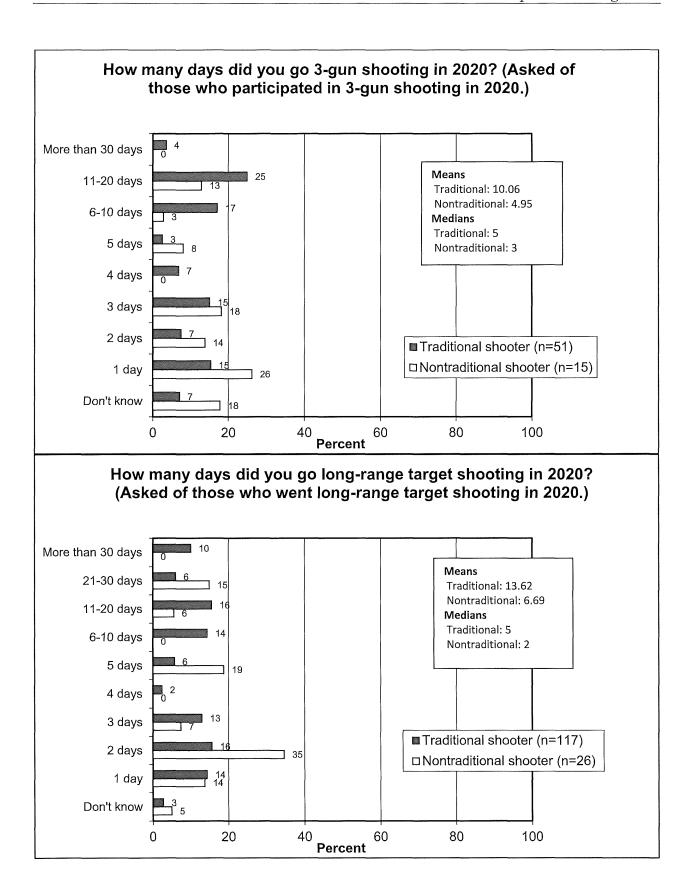
■ Traditional shooter (n=152)

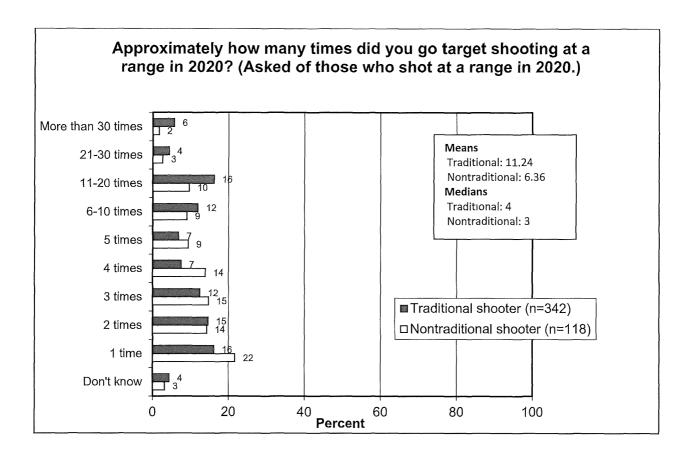
□ Nontraditional shooter (n=23)

100

80

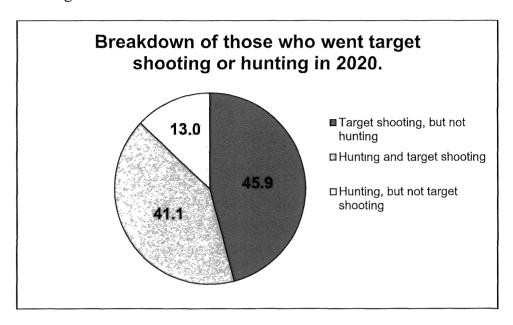




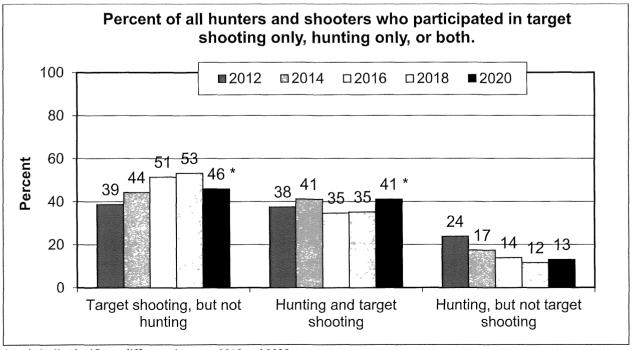


OVERLAP OF PARTICIPATION IN TARGET SHOOTING AND HUNTING

The pie graph below shows the proportions of hunting/shooting participants who went target shooting, hunting with firearms, or both in 2020. The entire pie consists of those who *either* hunted with firearms or went target/sport shooting. Just under half of this pool went target/sport shooting but did not hunt.

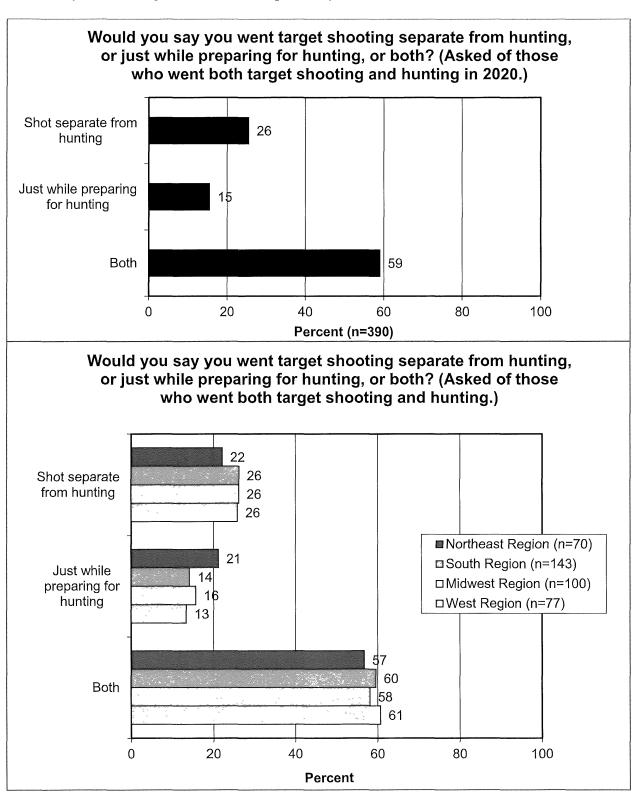


The trends analysis found that hunting took a bigger share of the participation breakdown, with hunting and target shooting as well as hunting, but not target shooting being higher in 2020 than they were in 2018, the former being statistically significant ($p \le 0.05$). In looking at the entire time period, however, target shooting still has a bigger share now than it did in 2012, at the expense of hunting. Asterisks indicate statistical significance between 2018 and 2020.



^{*}Statistically significant difference between 2018 and 2020.

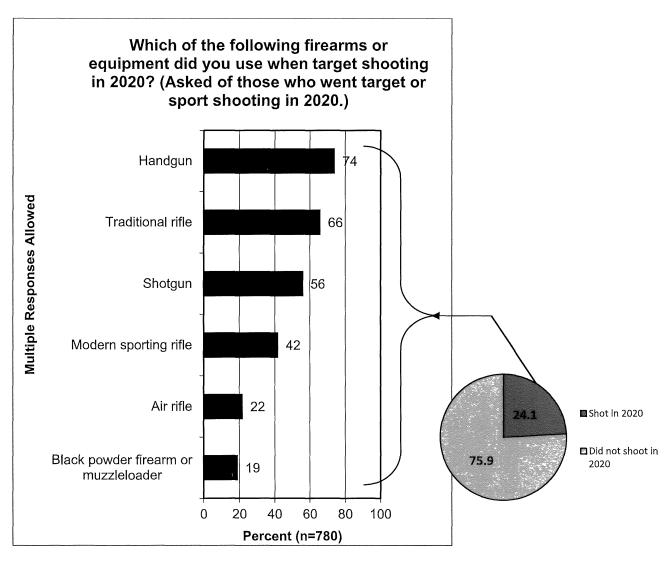
Of those who both hunted and target shot, 15% indicated that their target/sport shooting was done "just while preparing for hunting." The overwhelming majority of them (85%) spend some of their time simply shooting as a separate activity from hunting. (All hunters, including those exclusively bowhunting, were asked this question.)

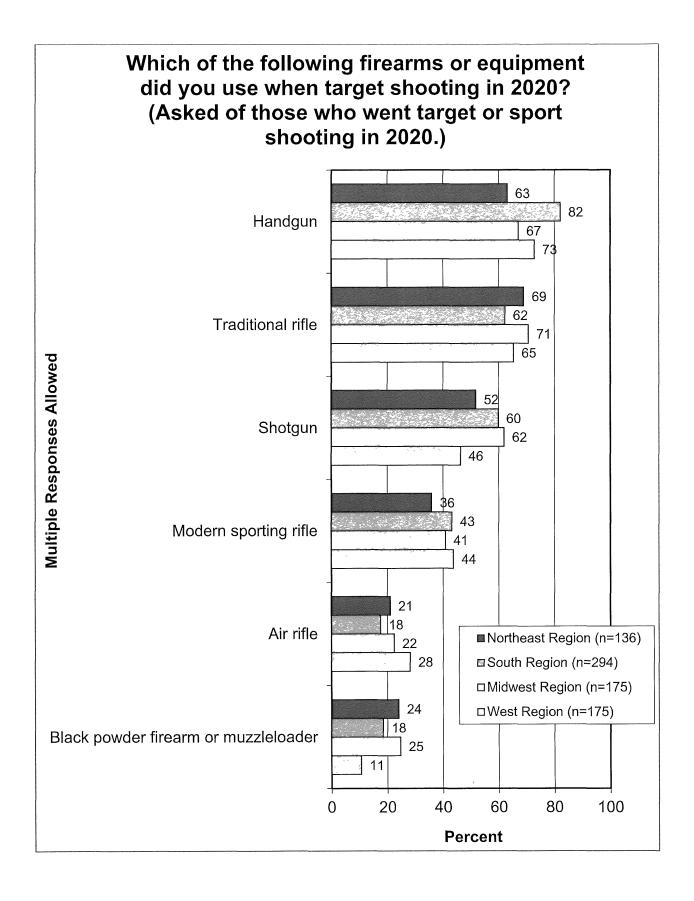


TYPES OF FIREARMS USED IN TARGET/SPORT SHOOTING

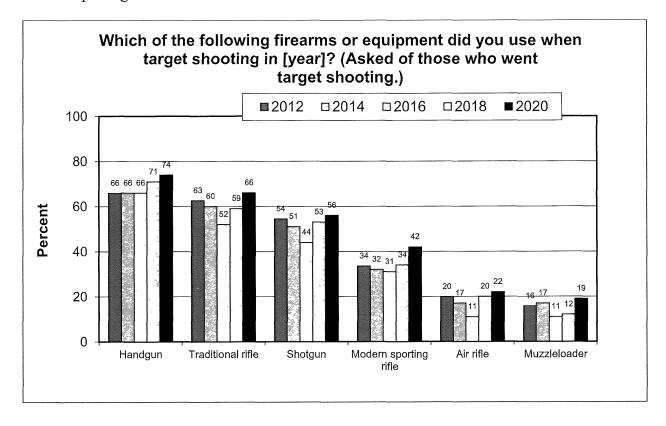
The following graph shows the percentages of target or sport shooters using various types of firearms (in total, 24.1% of all adult U.S. residents went target or sport shooting). At the top of the list are handguns and traditional rifles—both used by two thirds or more of sport shooters. This is followed by shotguns, being used by just more than half, and modern sporting rifles, used by a bit less than half. Graphs of regional results and trends follow.

Two questions in the survey asked about equipment, such as modern sporting rifles. In the first, respondents were asked if they had participated in various activities, such as "target shooting with a modern sporting rifle." A later question simply asked all target or sport shooters to name all the types of firearms that they had used in 2020 for any activities. Note that, typically, these percentages in the latter question are slightly more than those who reported that they "went target shooting" with the type of firearm. This discrepancy is accounted for by those who may have done other activities with these firearms (e.g., plinking, hunting) but not what they consider "target shooting" with them.



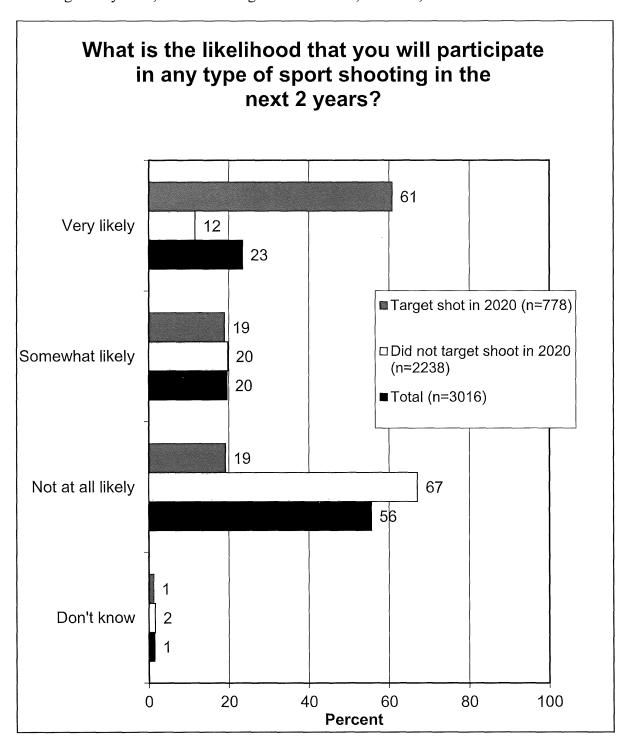


There was an increase in the rate of use of each type of firearm, with large increases in use of modern sporting rifles and muzzleloaders.

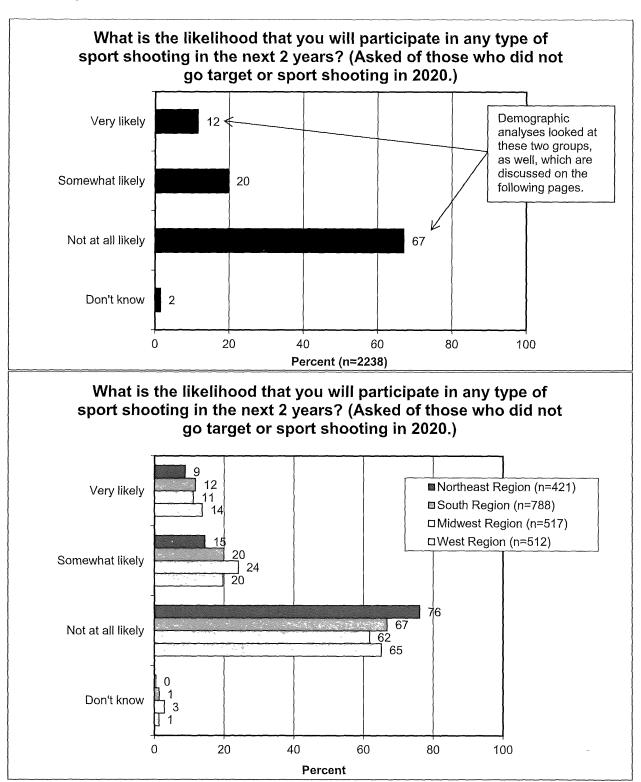


LIKELIHOOD TO GO TARGET OR SPORT SHOOTING IN THE FUTURE

This section shows the results among those who shot in 2020, those who did not, and the total among respondents overall. It then looks at each group separately, as was done in the analysis contained in previous reports. Overall, 23% of adult Americans say that it is *very* likely they will go shooting in the next 2 years. The rate of being *very* likely among those who did not go shooting is only 12%; the rate among those who shot, however, is 61%.

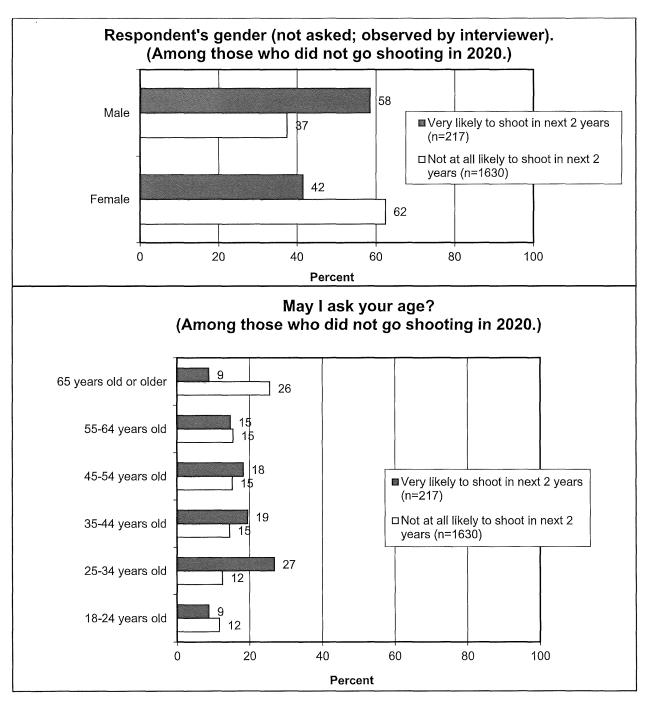


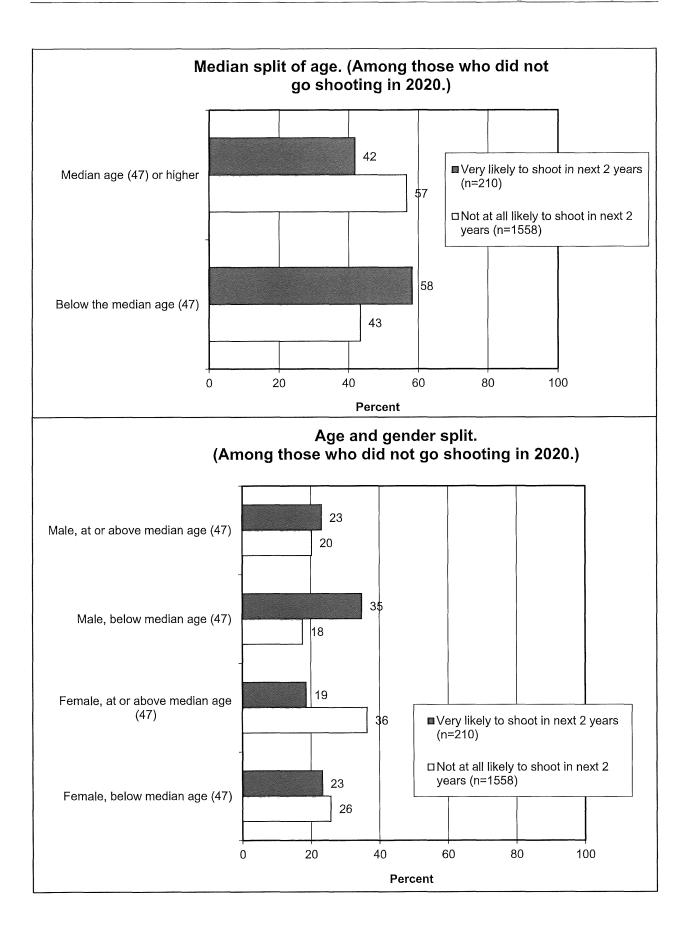
The next analysis looks at the groups separately: 12% of those who did *not* go target or sport shooting in 2020 are *very* likely to do so in the following 2 years. Regional results are shown, as well. Demographic analyses compare those who say that they are *very* likely to those who are *not* at all likely.



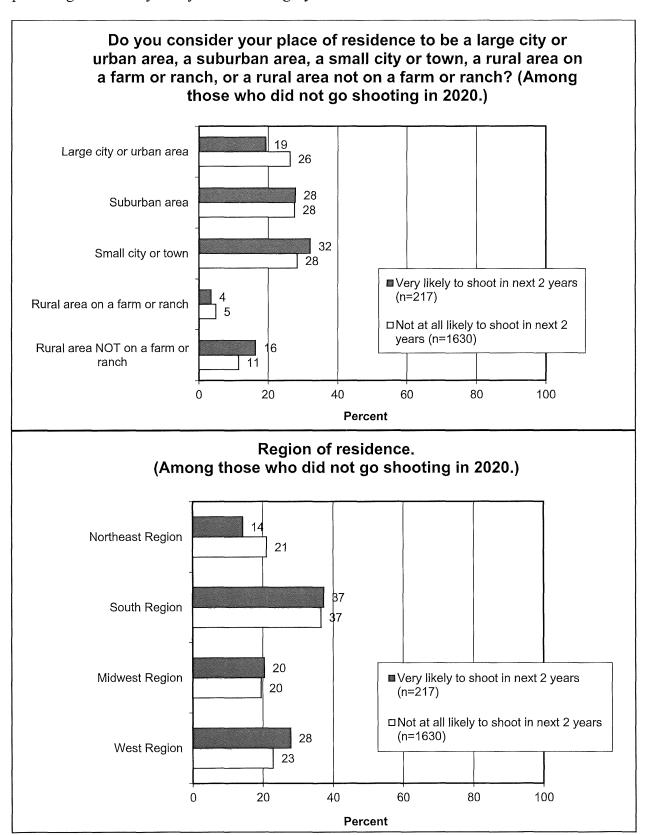
The crosstabulations are analyzed among those who did *not* go shooting in 2020. This looks at those who said that they are *very* likely to go shooting (as the *somewhat* likely people should probably be discounted vis-à-vis their actual likelihood to go shooting), and then it looks at those who said that they are *not* at all likely.

Among those who did not go shooting in 2020, men show a little more interest in target/sport shooting. Men make up 58% of those *very* likely to shoot but only 37% of those *not at all* likely to shoot in the next 2 years (note that this is among non-shooters in 2020). Middle-aged people have a greater propensity to say that they are very likely to go target/sport shooting in the next 2 years, compared to either the youngest category or the oldest category.

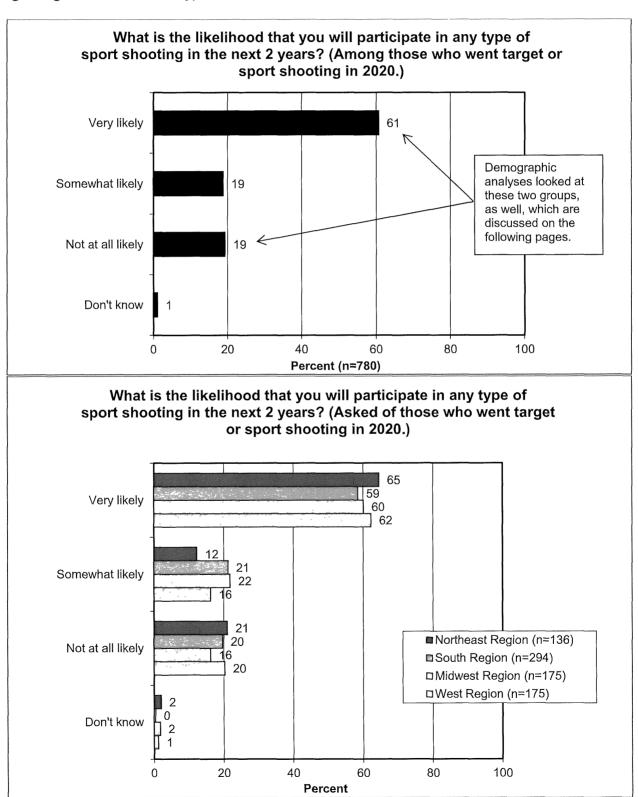




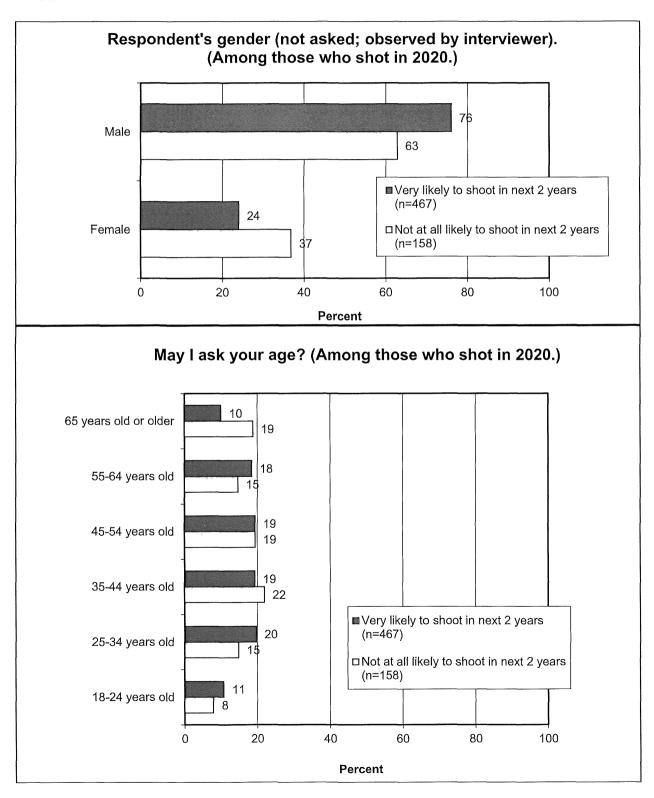
Among non-shooters, rural and small city/town residency is positively correlated with being very likely to go shooting in the next 2 years. Regionally, the West shows a slightly greater percentage in the very-likely-to-shoot category.



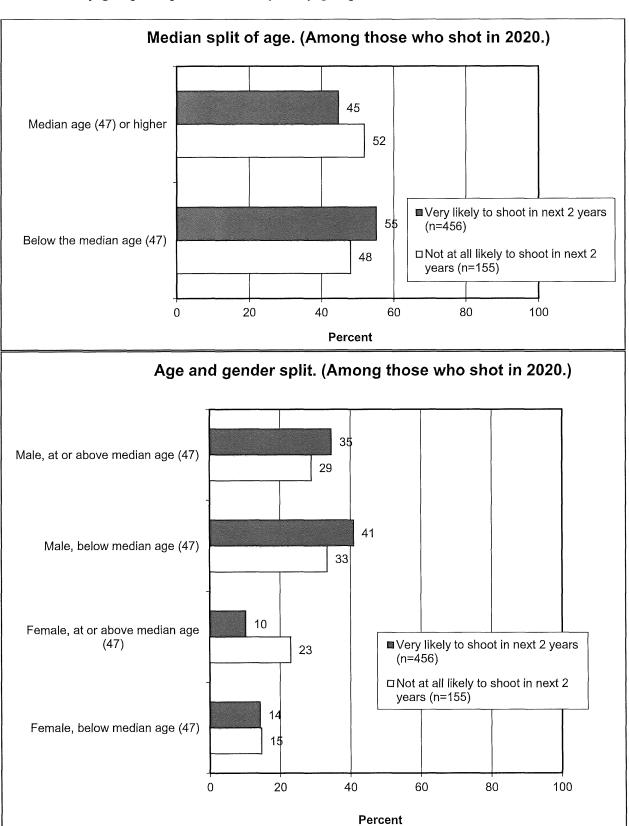
The above looked at those who had not participated in target or sport shooting in 2020. The report now examines those who had participated in 2020. Of 2020 sport shooting participants, 61% are very likely to go sport shooting in the following 2 years. The same demographic analyses were run comparing those who are very likely to those who are not at all likely (again ignoring the somewhat likely).



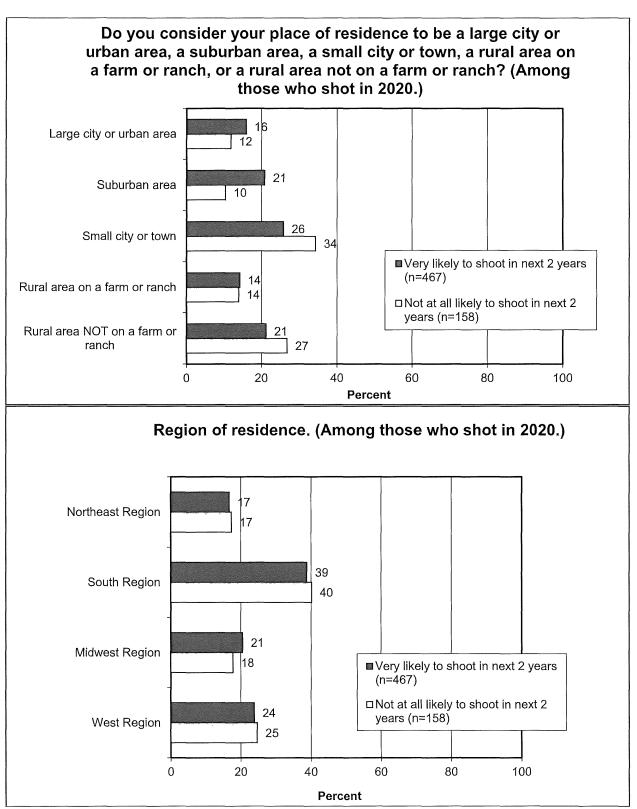
The gender crosstabulation found that women appear to be more likely to drop out of target/sport shooting: females make up only 24% of those who had shot in 2020 and are *very* likely to continue (i.e., shoot in the next 2 years), while they make up 37% of those who had shot in 2020 but are likely to quit (i.e., not at all likely to shoot in the next 2 years). The age crosstabulation does not show consistent differences in one direction or the other.



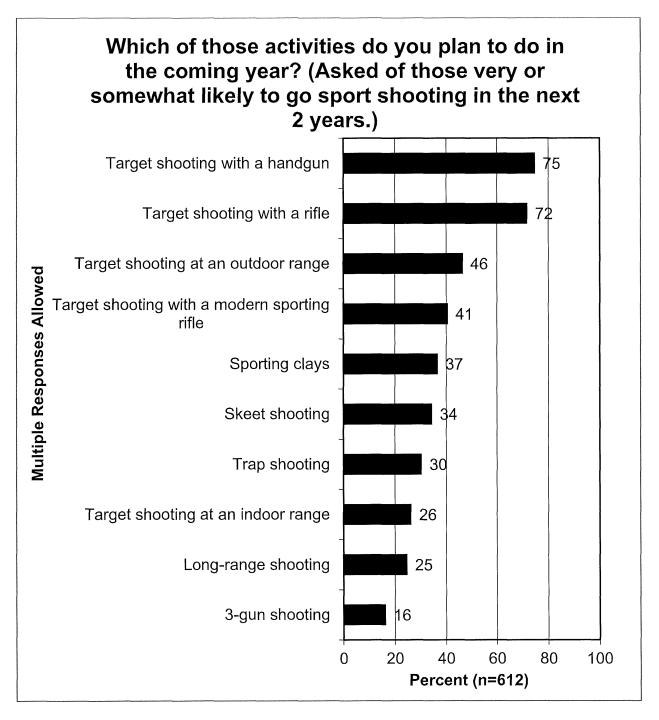
Older females have a disproportionate share of the group that plans to quit. As shown in the graphs, when the age and gender splits are combined, older females have a high percentage in the *not at all likely* group compared to the *very likely* group.

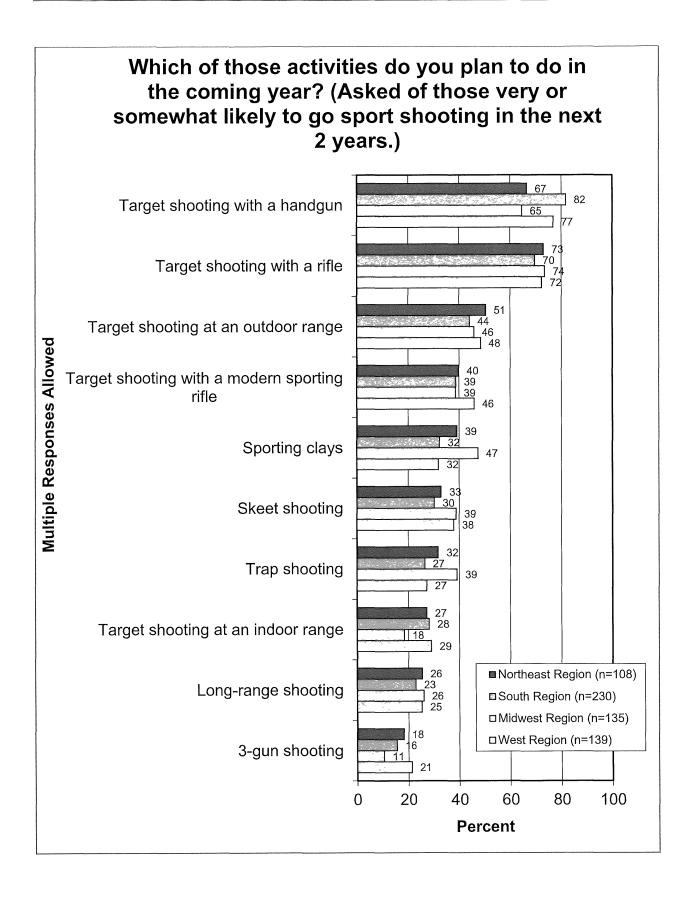


The place-of-residence crosstabulation found that rural areas and small cities/towns have a higher representation of 2020 shooters who are *not at all* likely to go shooting, compared to those shooters who plan to continue shooting in the next 2 years. The regional crosstabulation does not show large differences.



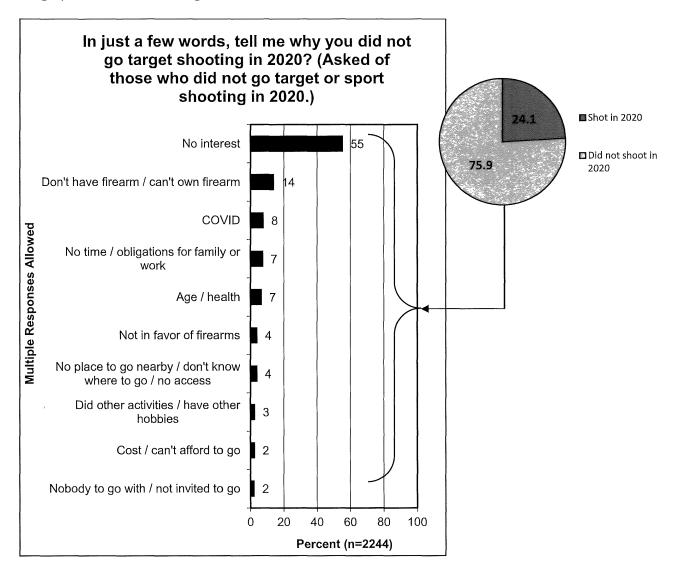
Planned shooting activities among those who had indicated being very or somewhat likely to target or sport shoot in the next 2 years is shown below. Two stand out at the top: target shooting with a handgun and target shooting with a rifle. These are distantly followed by target shooting at an outdoor range, target shooting with a modern sporting rifle, and various clay games (they could choose multiple activities). A regional graph is included, as well.



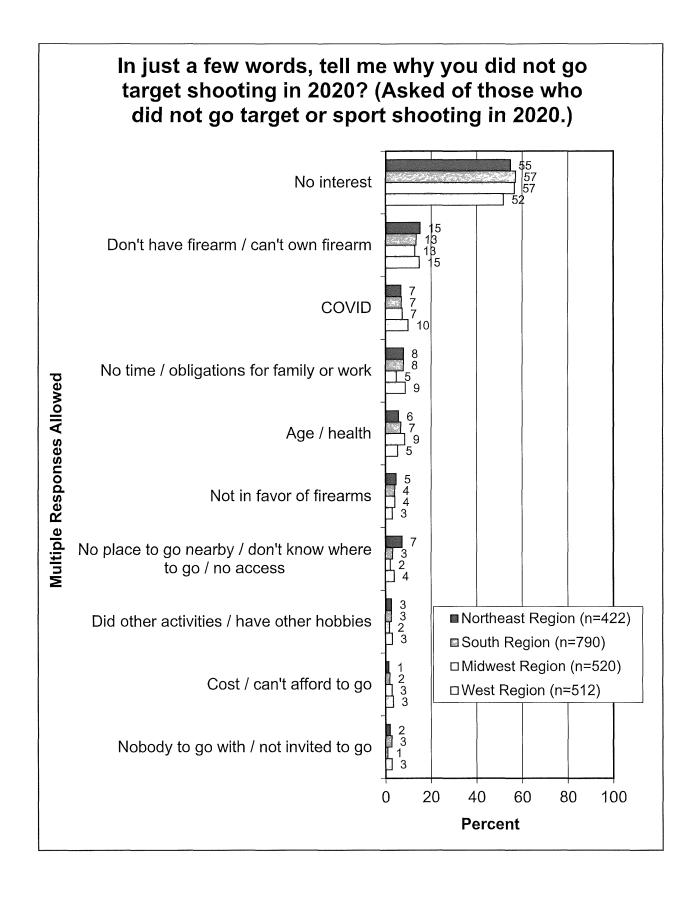


REASONS FOR NOT PARTICIPATING IN TARGET OR SPORT SHOOTING IN 2020 AND NON-SHOOTERS' DEMOGRAPHIC CHARACTERISTICS

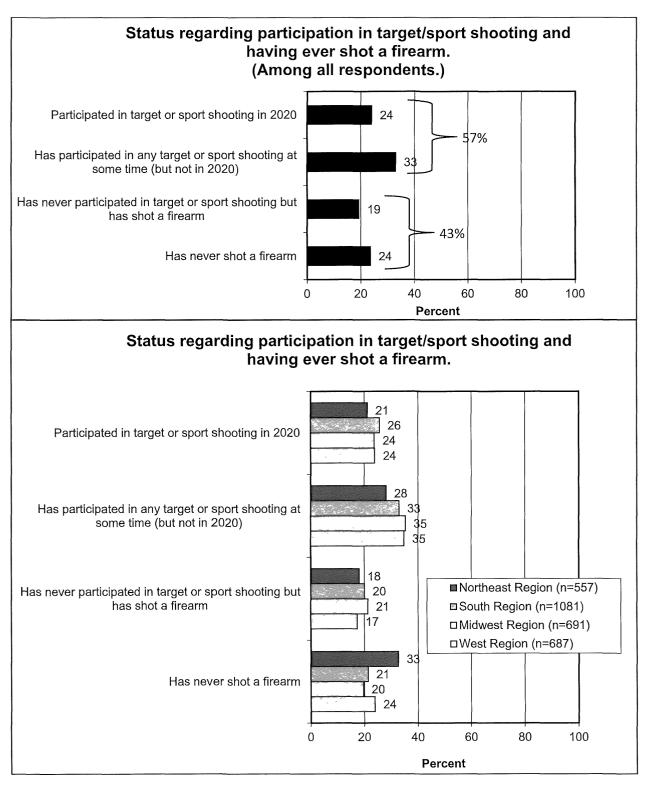
Those who did not participate in target/sport shooting were asked about their reasons for not doing so (75.9% of U.S. residents did *not* go target or sport shooting in 2020). Other than lack of interest, important reasons include lack of equipment, COVID-19 (which closed some indoor ranges), lack of time, and age/health.



The regional results are shown on the following page. On this question, there were few marked differences. One notable difference is that Northeast Region non-shooters are more likely than non-shooters from other regions to say that lack of access is a constraint. Age and health are more of an issue to Midwest Region non-shooters than to those from other regions.



Two questions asked those who had not target or sport shot in 2020 about their status regarding having ever participated in target/sport shooting and having ever shot a firearm. The data from these questions and about participation in target/sport shooting in 2020 were put together. A little under a quarter of U.S. residents (24%) indicate that they have never shot a firearm, and somewhat under half of the residents (43%) have never done any target or sport shooting. Regional results are also shown.

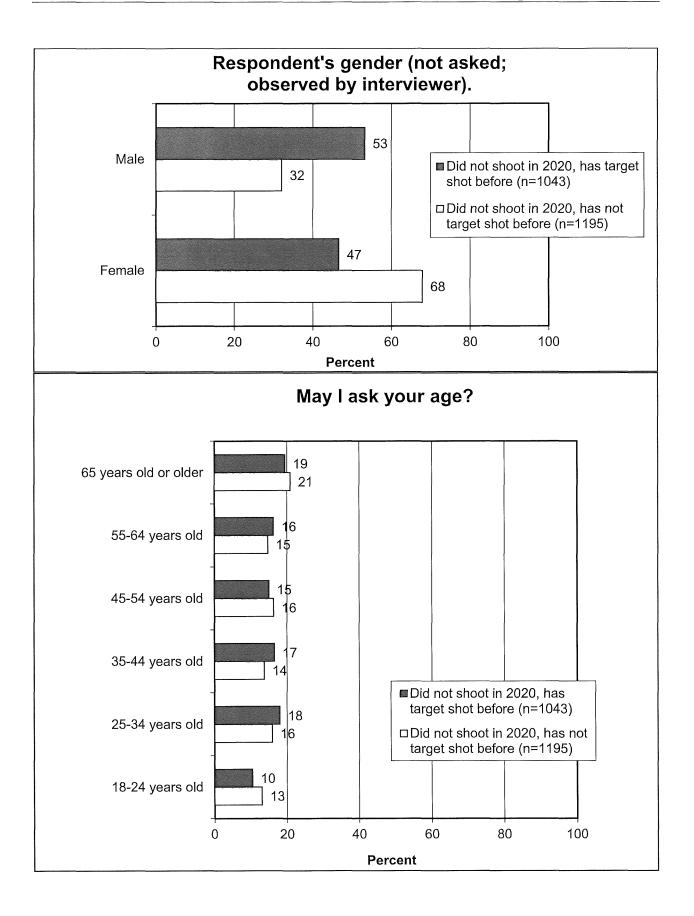


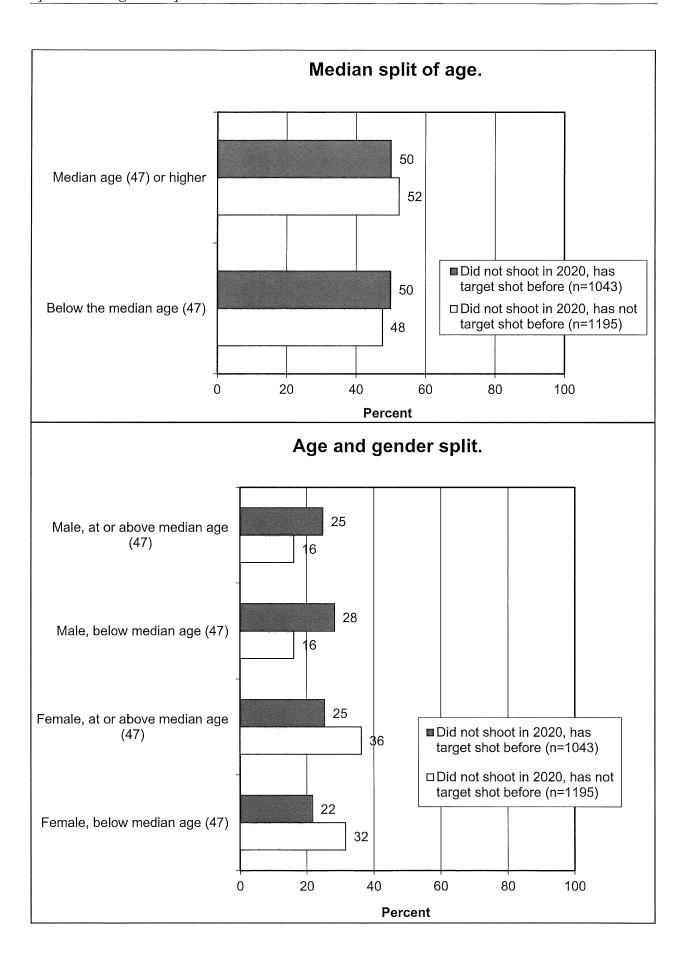
The next analysis is of the 33% in the graph previously shown who did not target or sport shoot in 2020 but did so at some time in the past. They are compared to the 43% who never participated in target or sport shooting (including those who never even shot a firearm).

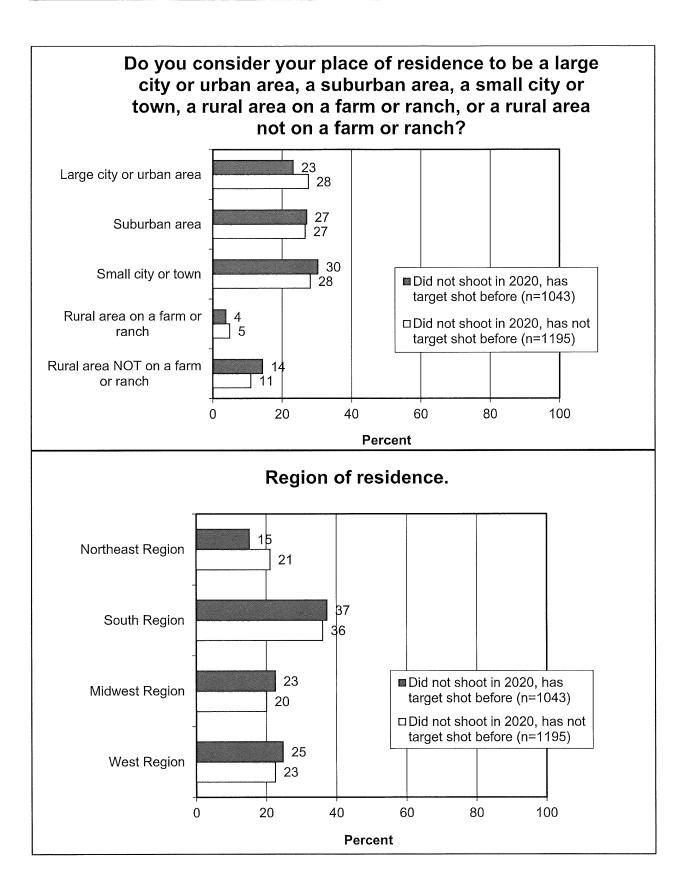
Among those who did not shoot in 2020, the "ever" group is much more male than the "never" group. Simply put, among non-2020 shooters, men are more likely than women to have gone target or sport shooting at some time in the past.

The age crosstabulation shows little consistent difference in the two groups. The combination of age and gender just reinforces that males are more prevalent in the group who did not shoot in 2020 but shot at some time before.

Among the final graphs is the rural-urban crosstabulation, which does not show great differences in the groups. The last graph is the regional breakdown, which does not show great differences either.

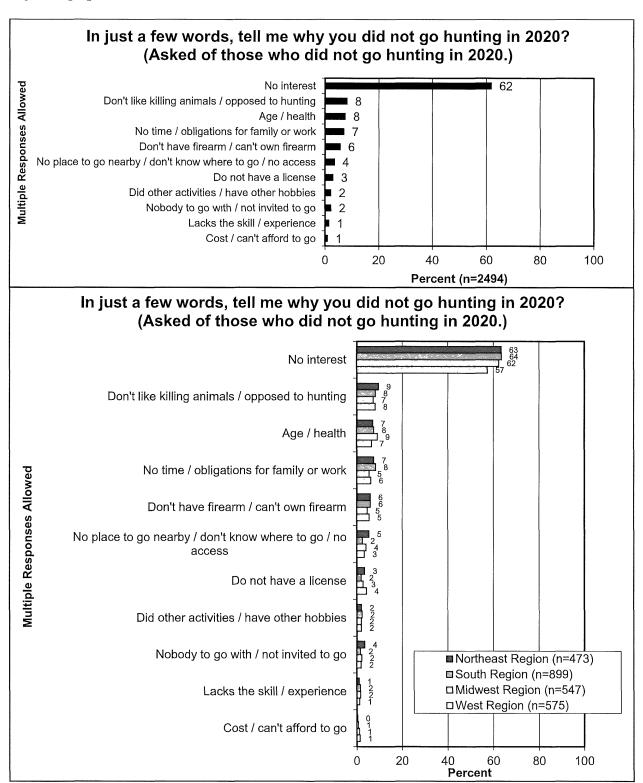






REASONS FOR NOT PARTICIPATING IN HUNTING IN 2020

A new question in this year's survey asked about reasons for not hunting in the previous year. Other than lack of interest, top reasons include a dislike of killing animals, age/health, lack of time because of family and/or work obligations, lack of a firearm, and lack of good access. The regional graph is included, with no notable differences.



ABOUT RESPONSIVE MANAGEMENT

Responsive Management is an internationally recognized survey research firm specializing in natural resource and outdoor recreation issues. The firm's mission is to help natural resource and outdoor recreation agencies, businesses, and organizations better understand and work with their constituents, customers, and the public.

Focusing only on natural resource and outdoor recreation issues, Responsive Management has conducted telephone, mail, and online surveys, as well as multi-modal surveys, on-site intercepts, focus groups, public meetings, personal interviews, needs assessments, program evaluations, marketing and communication plans, and other forms of human dimensions research measuring how people relate to the natural world for more than 30 years. Utilizing an in-house, full-service survey facilities with 75 professional interviewers, Responsive Management has conducted studies in all 50 states and 15 countries worldwide, totaling more than 1,000 human dimensions projects *only* on natural resource and outdoor recreation issues.

Responsive Management has conducted research for every state fish and wildlife agency and every federal natural resource agency, including the U.S. Fish and Wildlife Service, the National Park Service, the U.S. Forest Service, Bureau of Land Management, U.S. Coast Guard, and the National Marine Fisheries Service. Additionally, the firm has provided research for all the major conservation NGOs, including the Archery Trade Association, the American Sportfishing Association, the Association of Fish and Wildlife Agencies, Dallas Safari Club, Ducks Unlimited, Environmental Defense Fund, the Izaak Walton League of America, the National Shooting Sports Foundation, the National Wildlife Federation, the Recreational Boating and Fishing Foundation, the Rocky Mountain Elk Foundation, Safari Club International, the Sierra Club, Trout Unlimited, and the Wildlife Management Institute.

Other nonprofit and NGO clients include the American Museum of Natural History, the BoatUS Foundation, the National Association of Conservation Law Enforcement Chiefs, the National Association of State Boating Law Administrators, and the Ocean Conservancy. As well, Responsive Management conducts market research and product testing for numerous outdoor recreation manufacturers and industry leaders, such as Winchester Ammunition, Vista Outdoor (whose brands include Federal Premium, CamelBak, Bushnell, Primos, and more), Trijicon, Yamaha, and others.

Responsive Management also provides data collection for the nation's top universities, including Auburn University, Clemson University, Colorado State University, Duke University, George Mason University, Michigan State University, Mississippi State University, North Carolina State University, Oregon State University, Penn State University, Rutgers University, Stanford University, Texas Tech, University of California-Davis, University of Florida, University of Montana, University of New Hampshire, University of Southern California, Virginia Tech, West Virginia University, Yale University, and many more.

Responsive Management's research has been upheld in U.S. Courts, used in peer-reviewed journals, and presented at major wildlife and natural resource conferences around the world. The firm's research has also been featured in many of the nation's top media, including *Newsweek*, *The Wall Street Journal*, *The New York Times*, CNN, National Public Radio, and on the front pages of *The Washington Post* and *USA Today*.

